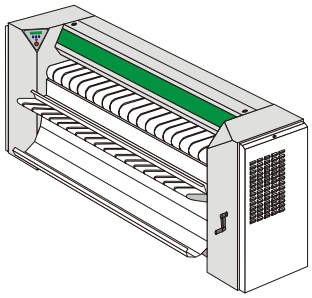
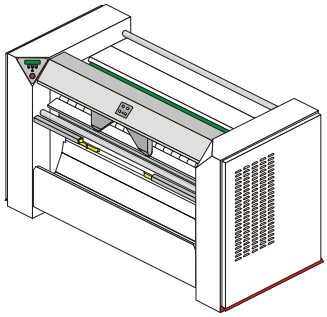
INSTALLATION MANUAL

FLATWORK IRONERS / FOLDER
IC44819-4821-4825-4828-4832
LF/FLF/R/FR

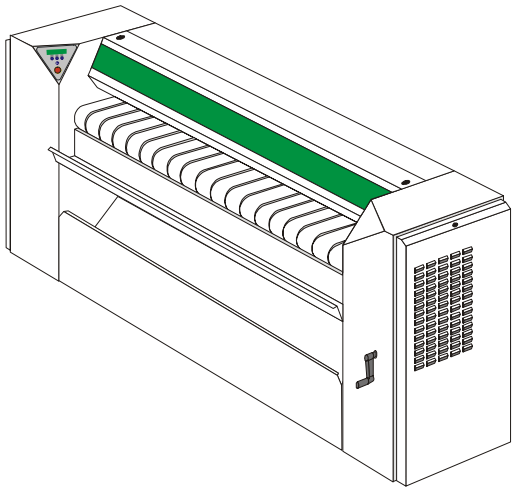
Flatwork ironer folder (LF)

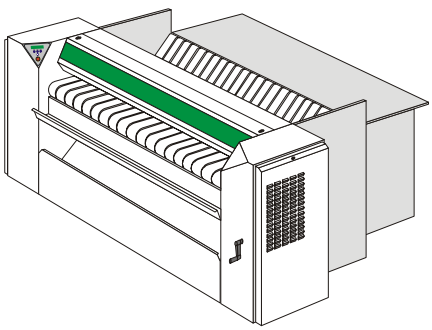


Feeder flatwork ironer folder (FLF)

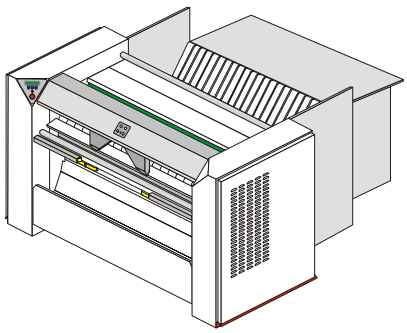


Flatwork ironer





Flatwork ironer with rear load removal (R)



Feeder flatwork ironer with rear load removal (FR)

Pages/Chapters

Environmental information

Concerned by providing the end user with useful and necessary environmental information, we wish to precise :

- Data about energetic consumptions, wastes (atmospheric and liquid) and sound level are indicated in the paragraph **"Technical characteristics"**.
- Forseeing its recycling, this machine is fully dismantable.
- This machine is free from any asbestos.
- In conformity with French regulations:

  - Law No. 76-663 of July 19th 1976
  - Decree No. 77-1133 of September 21st 1977
  - The decree of 7th July 1992
  - The decree of 29th December 1993
  - The decree of 28th December 1999
  - No. 2311 of the nomenclature for classified installations

  Commerical linen cleaning laundries and launderettes are subject to:

  - prefectural authorisation if the washing capacity exceeds five tonnes per day.
  - a declaration to the prefecture if the washing capacity exceeds 500 kilos per day but is below or equal to five tonnes per day.
- In application of the Law of 15 July 1975 and the decrees of 01 April and 13 July 1994 on the disposal of industrial and commercial packing waste «All owners of packing waste producing a weekly volume below 1100 litres can forward these to the local collection and treatment department. If exceeding this volume, the owners of packing waste will ensure their valuation by reuse, recycling or, any other action aiming at producing reusable materials or energy... or provide them contractually to a certified intermediate authorised to transport, trade or broke waste».

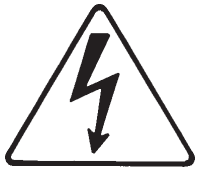
  Therefore, these texts forbid:
  - land filling raw waste
  - open air burning or incineration without energy collection.
- Packaging of our machines are according with the provisions of decree 98-638 from July 20 1998 related to environment requirements.

For additional information, do not hesitate to consult with our environmental department.

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.

SAFETY

The mechanical and electrical installation of the machine should only be done by qualified personnel.



CAUTION

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

CAUTION

Under no circumstances should a gas-heating machine be installed in a building which includes a dry-cleaning machine.

CAUTION

It is specially advised not to install the machine on a synthetic floor covering. The frictional electricity may hinder the good working of the machine.
Earthing is compulsory.
The warranty might be cancelled if these instructions are not complied with.

Note about the A.C. power

- According to the EN 60204-1:1997 standard, the machine is provided for AC supplies corresponding to the extracted caracteristics below :

  4.3.2 AC supplies

  Voltage :
  Steady state voltage : 0,9…1,1 of nominal voltage.

  Frequency :
  0,99…1,01 of nominal frequency continuously.
  0,98…1,02 short time.

  Harmonics :
  Harmonic distorsion not to exceed 10% of the total r.m.s. voltage between live conductors for the sum of the second through to the fifth harmonic. An additional 2% of the total r.m.s. voltage between live conductors for the sum of the sixth through to the 30th harmonic is permissible.

  Voltage unbalance :
  Neither the voltage of the negative sequence component nor the voltage of the zero sequence component in three-phase supplies shall exceed 2% of the positive sequence component.

  Voltage interruption :
  Supply interrupted or at zero voltage for not more than 3ms at any random time in the supply cycle. There shall be more than 1s between successive interruptions.

  Voltage dips :
  Voltage dips shall not exceed 20% of the peak voltage of the supply for more than one cycle. There shall be more than 1s between successive dips.

WARNING

It is obligatory that all these operations are undertaken by handling specialists.

1/ Lifting with a fork-lift truck

Always lift at the centre of the machine at (A).

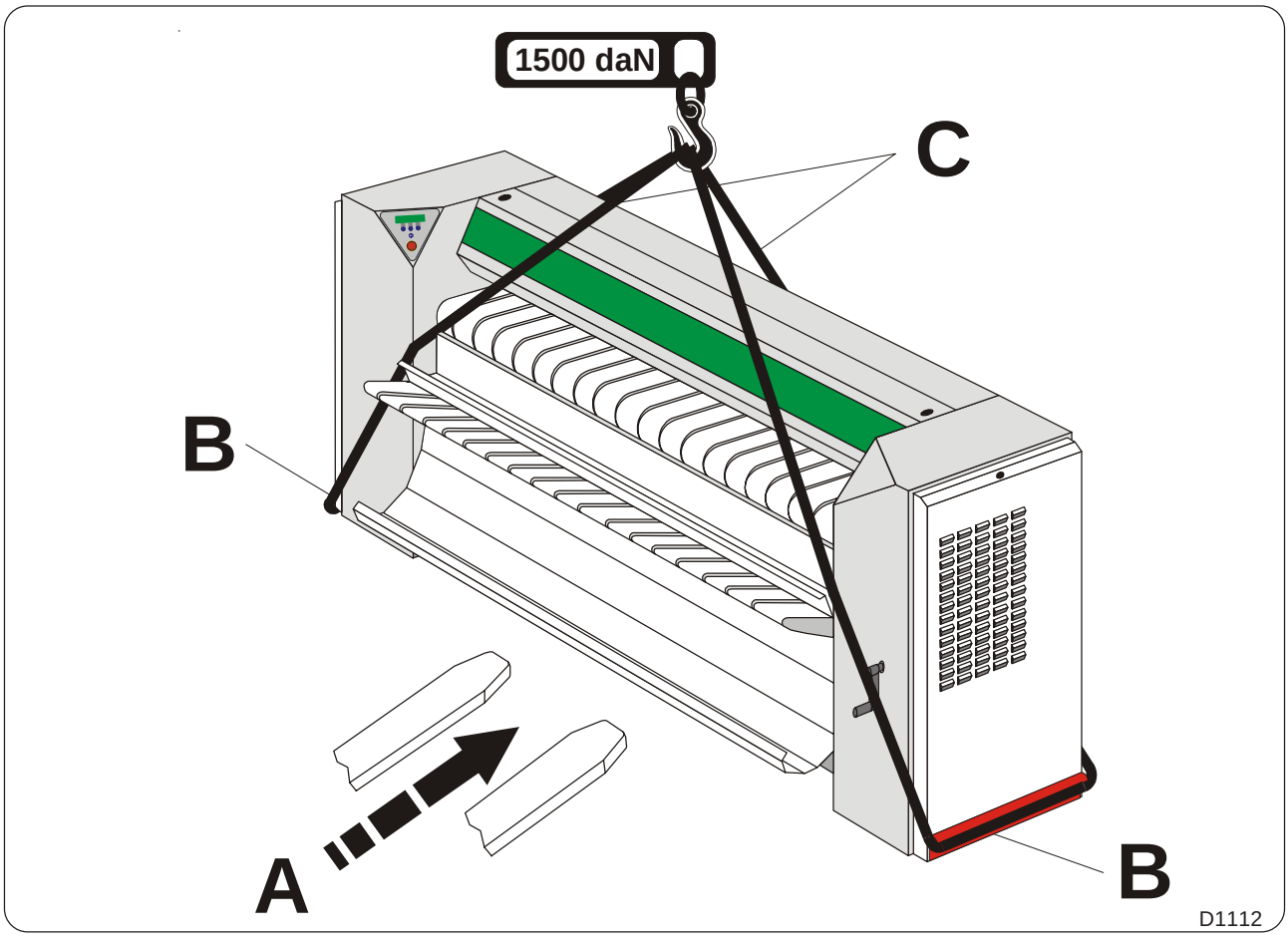
If necessary, set the adjustment feet of the machine in such as way as to allow the forks of the stacker truck to make contact correctly.

2/ Moving along the groung

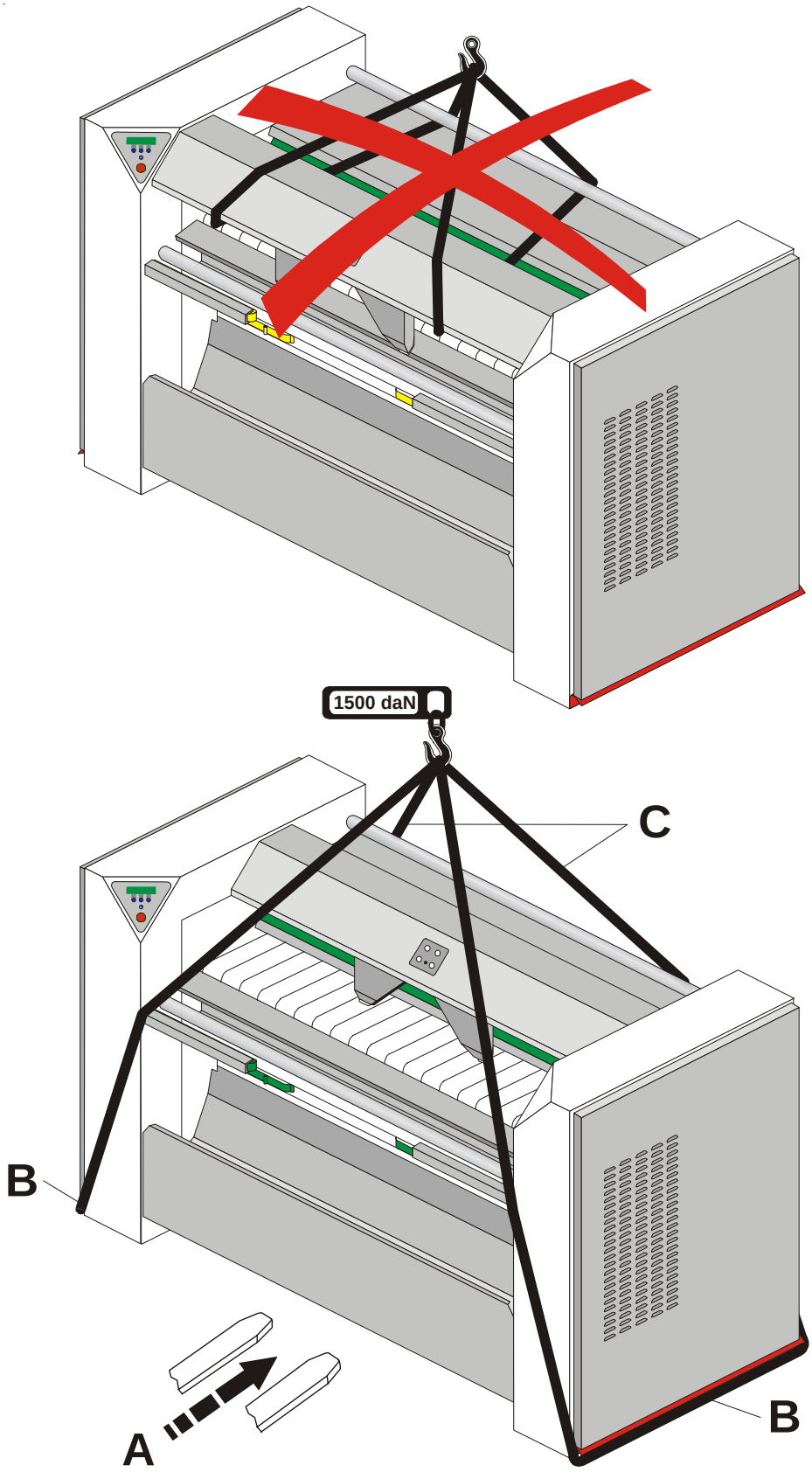
The machine frame includes a girder, so that the machine can be moved along the ground using rollers, grinding tracks or a trolley.

The two handling angles (B) can be used to lift the machine using hydraulic jacks or poles, so that rollers can be slipped under the girder.

These two handling angles are also designed to lift the machine with handling straps (C).



The special case of a machine with automatic feeding.



Dryer-ironer

Packing

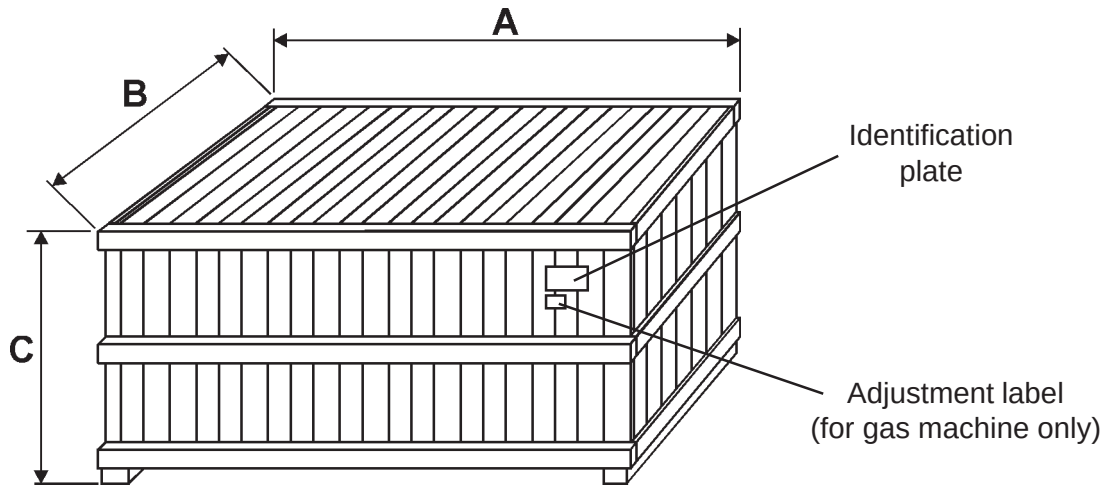
Packing dimensions in mm	Size A	Size B	Size C (machine+pallet)	Size C (crate
IC44819	2720	1020	1460	1560
IC44821	2930	1020	1460	1560
IC44825	3350	1020	1460	1560
IC44828	3550	1020	1460	1560
IC44832	3980	1020	1460	1560

Weight in daN (machine + pallet)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819	---	---	678	650	---
IC44821	---	---	---	---	---
IC44825	---	---	---	---	---
IC44828	---	---	806	---	---
IC44832	---	---	---	---	---

Weight in daN (machine + crate)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819	---	---	---	---	---
IC44821	---	---	---	---	---
IC44825	---	---	---	---	---
IC44828	---	---	---	---	---
IC44832	---	---	---	---	---



D0476

Dryer-ironer-folder

Packing

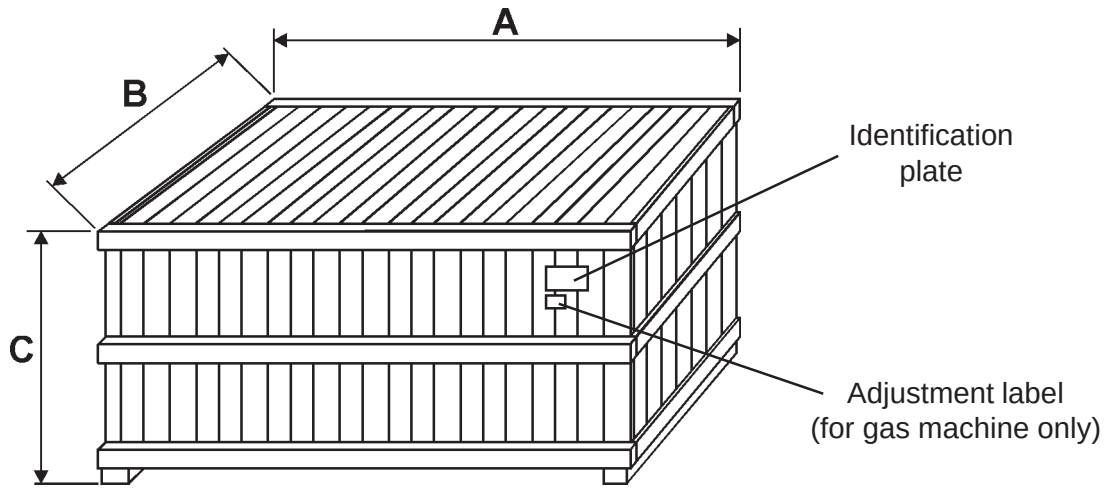
Packing dimensions in mm	Size A	Size B	Size C (machine+pallet)	Size C (crate
IC44819 LF	2720	1140	1460	1560
IC44821 LF	2930	1140	1460	1560
IC44825 LF	3350	1140	1460	1560
IC44828 LF	3550	1140	1460	1560
IC44832 LF	3980	1140	1460	1560

Weight in daN (machine + pallet)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 LF	---	---	---	---	---
IC44821 LF	---	---	---	---	---
IC44825 LF	---	---	---	---	---
IC44828 LF	---	---	---	---	---
IC44832 LF	---	1200	---	---	---

Weight in daN (machine + crate)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 LF	---	---	---	---	---
IC44821 LF	---	---	---	---	---
IC44825 LF	---	---	---	---	---
IC44828 LF	---	---	---	---	---
IC44832 LF	---	---	---	---	---



D0476

Feeder-dryer-ironer-folder

Packing

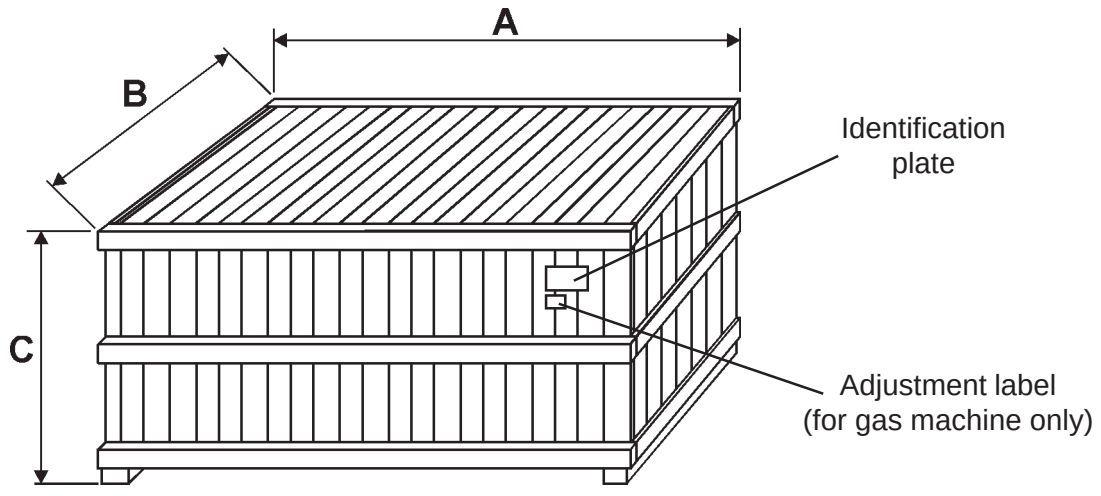
Packing dimensions in mm	Size A	Size B	Size C (machine+pallet)	Size C (crate
IC44819 FLF	2720	1140	1460	1560
IC44821 FLF	2930	1140	1460	1560
IC44825 FLF	3350	1140	1460	1560
IC44828 FLF	3550	1140	1460	1560
IC44832 FLF	3980	1140	1460	1560

Weight in daN (machine + pallet)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 FLF	---	---	1080	---	---
IC44821 FLF	---	---	---	---	---
IC44825 FLF	---	1290	---	---	---
IC44828 FLF	---	---	---	---	---
IC44832 FLF	---	---	---	---	---

Weight in daN (machine + crate)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 FLF	---	---	---	---	---
IC44821 FLF	---	---	---	---	---
IC44825 FLF	---	---	---	---	---
IC44828 FLF	---	---	---	---	---
IC44832 FLF	---	---	---	---	---



D0476

Dryer-ironer with rear load removal

Packing

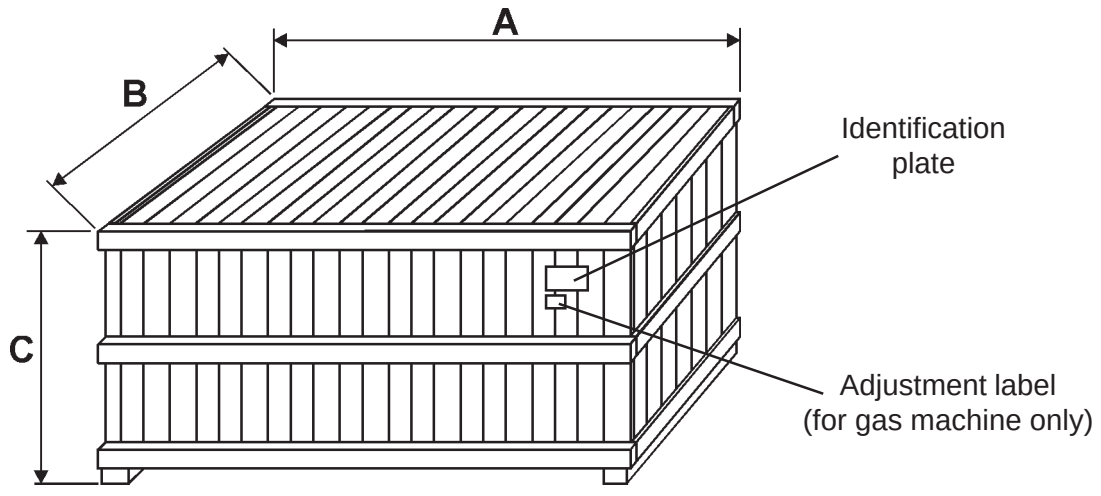
Packing dimensions in mm	Size A	Size B	Size C (machine+pallet)	Size C (crate
IC44819 R	2780	1700	1460	1560
IC44821 R	2990	1700	1460	1560
IC44825 R	3410	1700	1460	1560
IC44828 R	3620	1700	1460	1560
IC44832 R	4040	1700	1460	1560

Weight in daN (machine + pallet)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 R	---	---	---	---	---
IC44821 R	---	---	---	---	---
IC44825 R	---	---	---	---	---
IC44828 R	---	---	---	---	---
IC44832 R	---	---	---	---	---

Weight in daN (machine + crate)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 R	---	---	---	---	---
IC44821 R	---	---	---	---	---
IC44825 R	---	---	---	---	---
IC44828 R	---	---	---	---	---
IC44832 R	---	---	---	---	---



D0476

Feeder-dryer-ironer with rear load removal

Packing

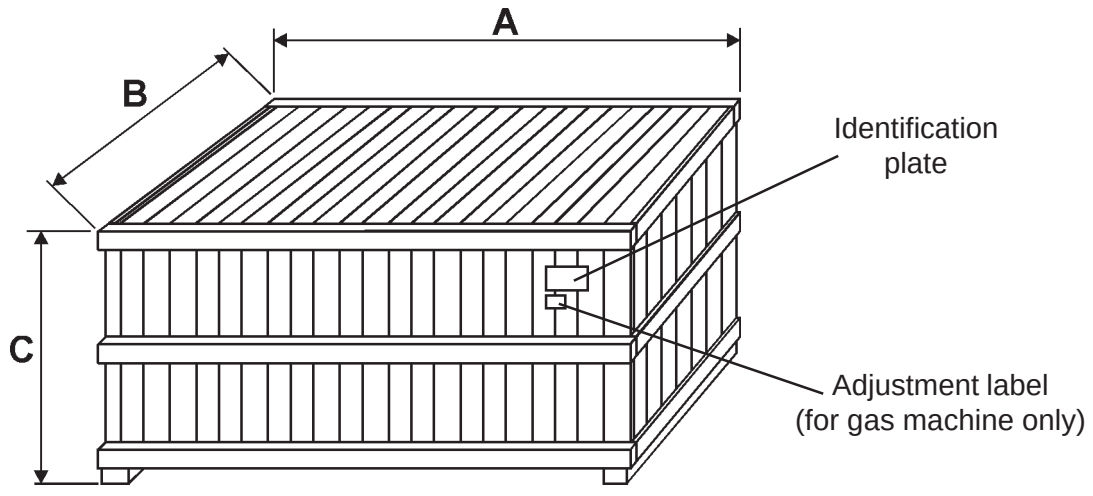
Packing dimensions in mm	Size A	Size B	Size C (machine+pallet)	Size C (crate
IC44819 FR	2780	1700	1460	1560
IC44821 FR	2990	1700	1460	1560
IC44825 FR	3410	1700	1460	1560
IC44828 FR	3620	1700	1460	1560
IC44832 FR	4040	1700	1460	1560

Weight in daN (machine + pallet)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 FR	---	---	---	---	---
IC44821 FR	---	---	---	---	---
IC44825 FR	---	---	---	---	---
IC44828 FR	---	---	---	---	---
IC44832 FR	---	---	---	---	---

Weight in daN (machine + crate)

	Gas	Gas Dubixium	Electric	Electric Dubixium	Steam
IC44819 FR	---	---	---	---	---
IC44821 FR	---	---	---	---	---
IC44825 FR	---	---	---	---	---
IC44828 FR	---	---	---	---	---
IC44832 FR	---	---	---	---	---



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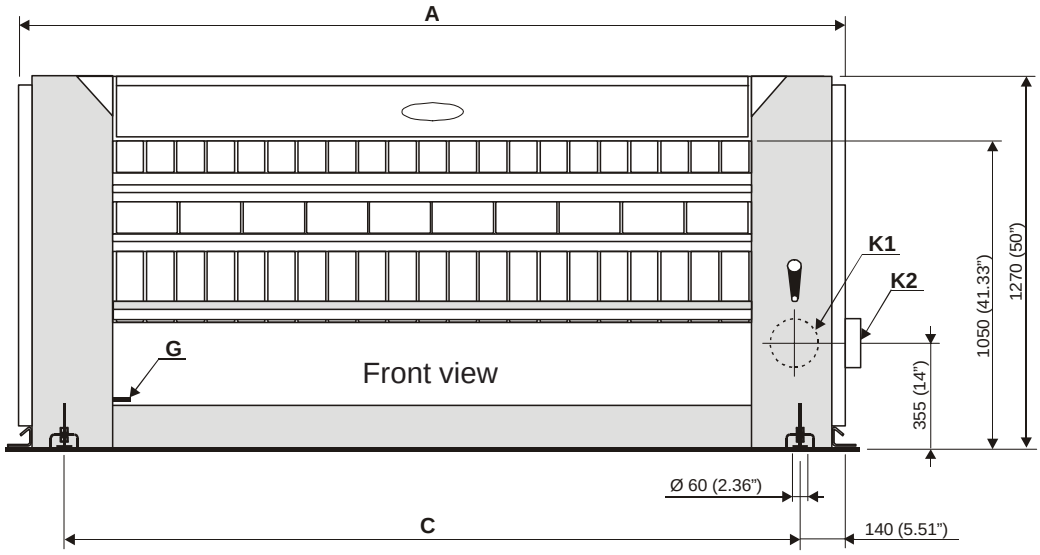
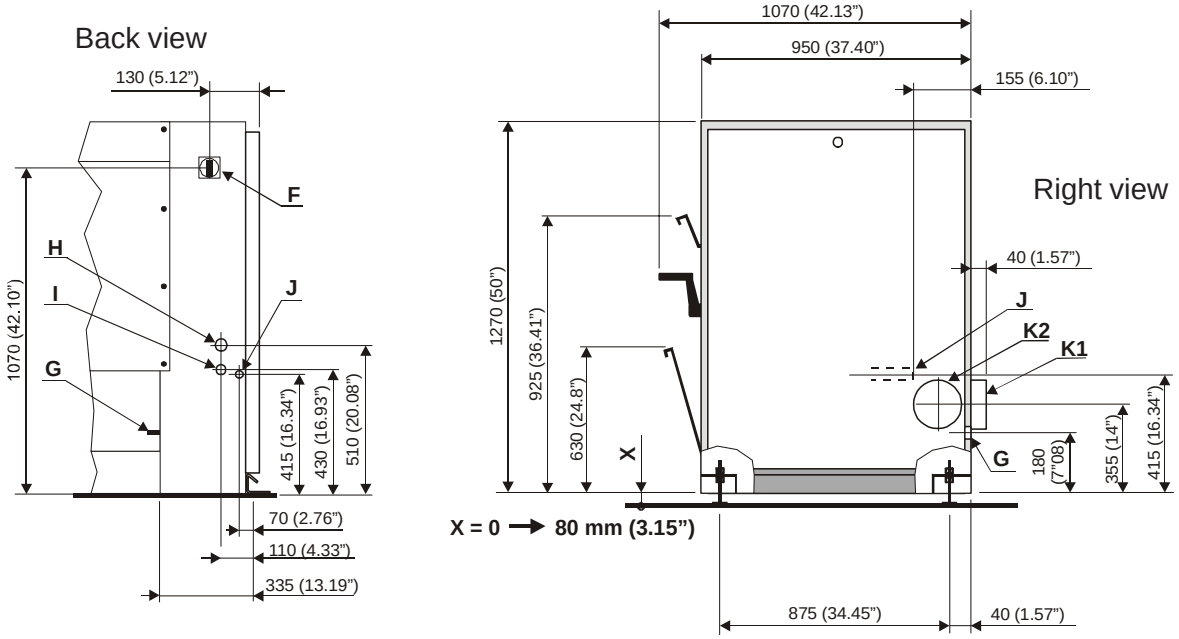
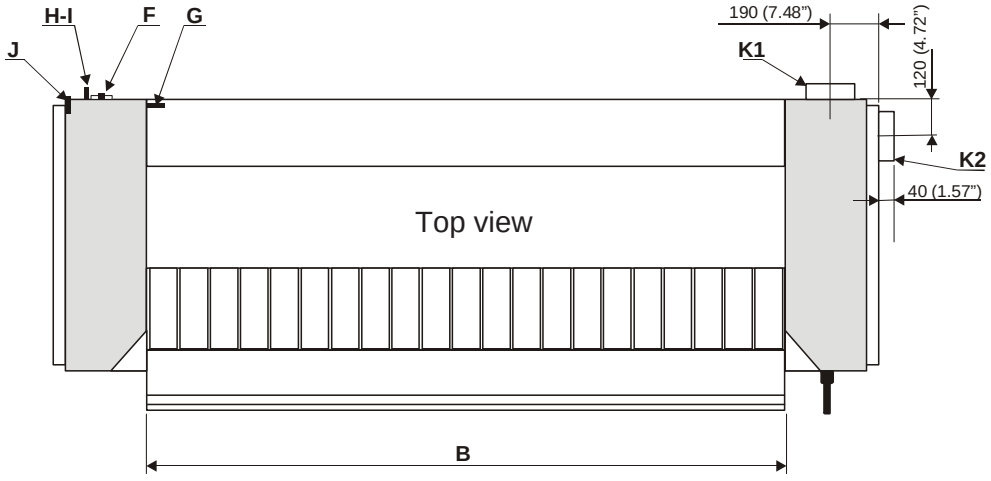

A
K1
K2
G
Front view
1050 (41.33")
1270 (50")
355 (14")
Ø 60 (2.36")
C
140 (5.51")


Back view
130 (5.12")
F
H
I
J
G
1070 (42.10")
415 (16.34")
430 (16.93")
510 (20.08")
70 (2.76")
110 (4.33")
335 (13.19")
1070 (42.13")
950 (37.40")
155 (6.10")
Right view
40 (1.57")
J
K2
K1
1270 (50")
925 (36.41")
630 (24.8")
X
G
180 (7"08)
355 (14")
415 (16.34")
X = 0 → 80 mm (3.15")
875 (34.45")
40 (1.57")


H-I
F
G
J
190 (7.48")
K1
120 (4.72")
K2
40 (1.57")
Top view
B

07100117

Diagram no. 07100117

Ironer

Characteristics	IC4	4819	4821	4825	4828	4832
Ø cylinder						
Gas / Electric heating	mm	479	479	479	479	479
Steam heating	mm	457	457	457	457	457
Effective working width	mm	1910	2120	2540	2750	3170
Ironing speed						
Mini	m/min	1,5	1,5	1,5	1,5	1,5
Maxi	m/min	9	9	9	9	9
Heating surface						
Gas / Electric heating	m²	2,20	2,40	2,90	3,15	3,60
Steam heating	m²	2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)						
Gas heating	kg/h	35	37	46	51	59
Electric heating	kg/h	38	40	48	51	59
Steam heating	kg/h	57	63	75	81	93
Net weight						
Gas heating	kg	570/---	615/---	685/---	735/---	800/---
Electric heating	kg	570/---	615/---	685/---	735/---	800/---
Steam heating	kg	610	640	720	780	845
Floor area	m²	2,50	2,70	3,10	3,30	3,70

Dimensions

(A) Overall width	mm	2575	2785	3205	3415	3835
(B) Feeder width	mm	1910	2120	2540	2750	3170
(C) Width between feet	mm	2300	2510	2930	3140	3560

Connections

(F) Main switch to connect electric main cable
(G) Inlet for electric main cable
(H) Steam inlet DN 20 (3/4" BSP) (maximum supply pressure 1000 kPa)
(I) Condensate return DN 10 (3/8" BSP)
(J) Gas inlet DN 20 (3/4" BSP)
(K1 or K2) Drain of vapour or burnt gas Ø 160 mm

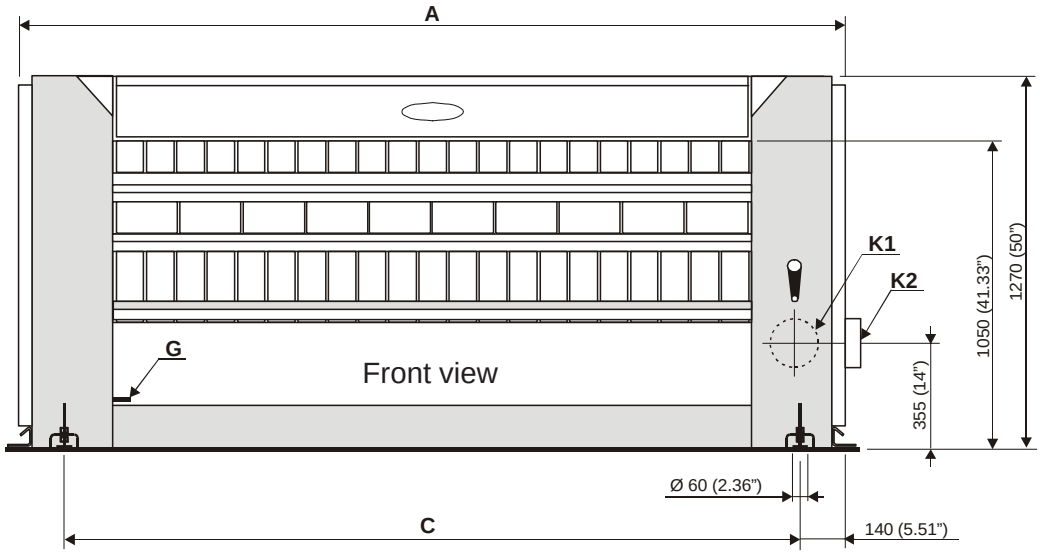
Consumptions

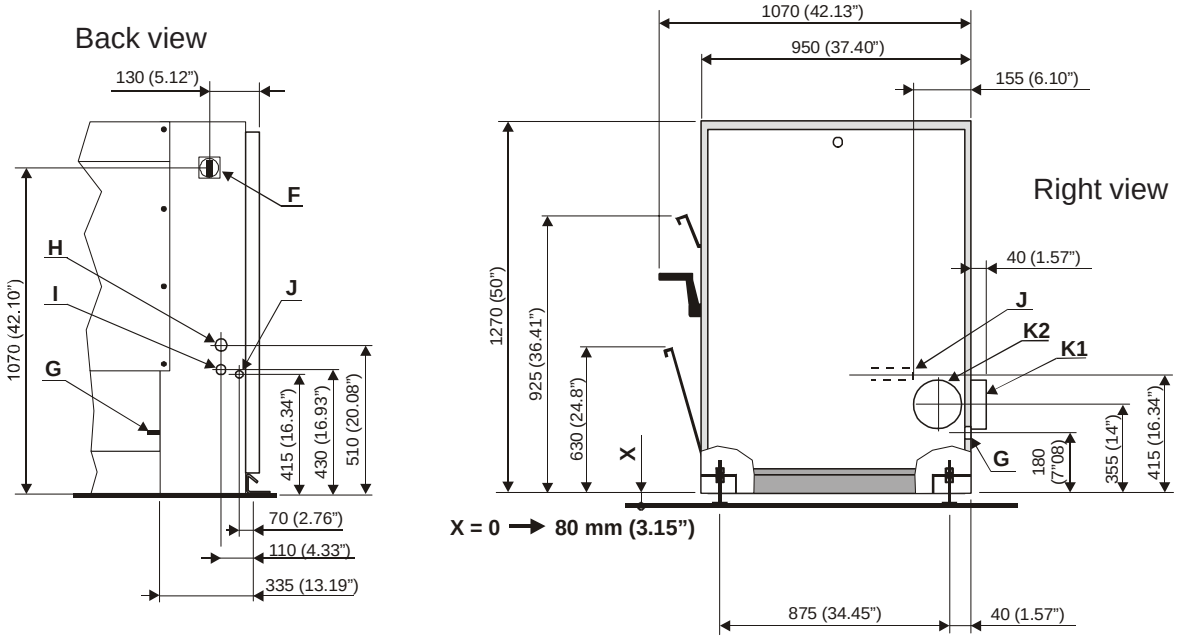
Gas heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Installed heating power	kW	39	44	52	56	65
Electric heating						
Installed electric power	kW	34,25	37,85	44,60	48,20	54,95
Installed heating power	kWh	32,85	36,45	43,20	46,80	53,55
Maximum electrical consumption	kW	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Max. steam consumption kg/h at 900 kPa		83	92	110	123	141
Inner volume steam cylinder	dm³	300	335	398	431	497

Heat loss : 3 % of installed heating power

Exhaust air max. with no pressure at 15 °C	m³/h	830	---	---	---	---

Total pressure with no flow : 880 Pa
Admissible head loss on evacuation : 200 Pa


A
K1
K2
G
Front view
1050 (41.33")
1270 (50")
355 (14")
Ø 60 (2.36")
C
140 (5.51")


Back view
130 (5.12")
F
H
I
J
G
1070 (42.10")
415 (16.34")
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70 (2.76")
110 (4.33")
335 (13.19")
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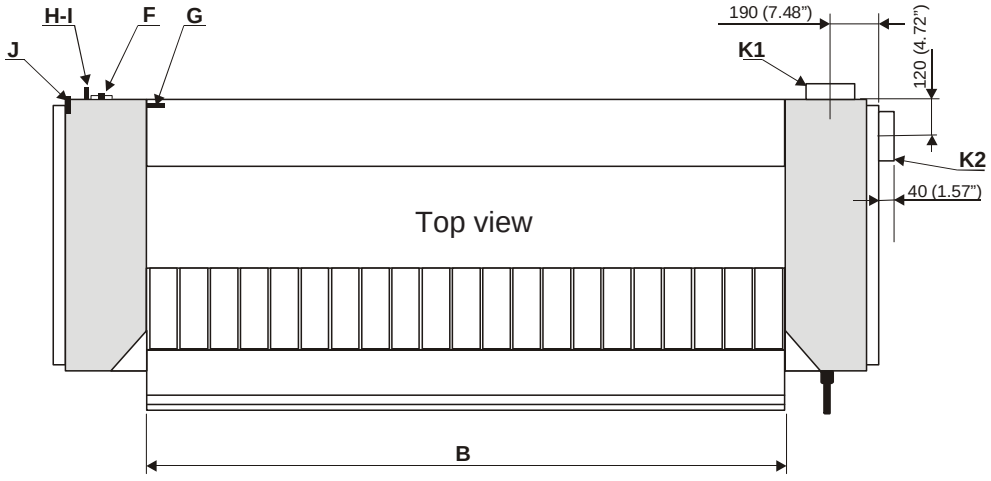
155 (6.10")
Right view
40 (1.57")
J
K2
K1
1270 (50")
925 (36.41")
630 (24.8")
X
G
180 (7"08)
355 (14")
415 (16.34")
X = 0 → 80 mm (3.15")
875 (34.45")
40 (1.57")


H-I
F
G
J
190 (7.48")
K1
120 (4.72")
K2
40 (1.57")
Top view
B

07100118

Diagram no. 07100118

Ironer with length folding

Characteristics	IC4	4819LF	4821LF	4825LF	4828LF	4832LF
Ø cylinder						
Gas / Electric heating	mm	479	479	479	479	479
Steam heating	mm	457	457	457	457	457
Effective working width	mm	1910	2120	2540	2750	3170
Ironing speed						
Mini	m/min	1,5	1,5	1,5	1,5	1,5
Maxi	m/min	9	9	9	9	9
Heating surface						
Gas / Electric heating	m²	2,20	2,40	2,90	3,15	3,60
Steam heating	m²	2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)						
Gas heating	kg/h	35	37	46	51	59
Electric heating	kg/h	38	40	48	51	59
Steam heating	kg/h	57	63	75	81	93
Net weight						
Gas heating	kg	670/---	720/---	815/---	850/---	935/---
Electric heating	kg	670/---	720/---	815/---	850/---	935/---
Steam heating	kg	700	755	835	870	950
Floor area	m²	2,50	2,70	3,10	3,30	3,70

Dimensions

(A) Overall width	mm	2575	2785	3205	3415	3835
(B) Feeder width	mm	1910	2120	2540	2750	3170
(C) Width between feet	mm	2300	2510	2930	3140	3560

Connections

(F) Main switch to connect electric main cable
(G) Inlet for electric main cable
(H) Steam inlet DN 20 (3/4" BSP) (maximum supply pressure 1000 kPa)
(I) Condensate return DN 10 (3/8" BSP)
(J) Gas inlet DN 20 (3/4" BSP)
(K1 or K2) Drain of vapour or burnt gas Ø 160 mm

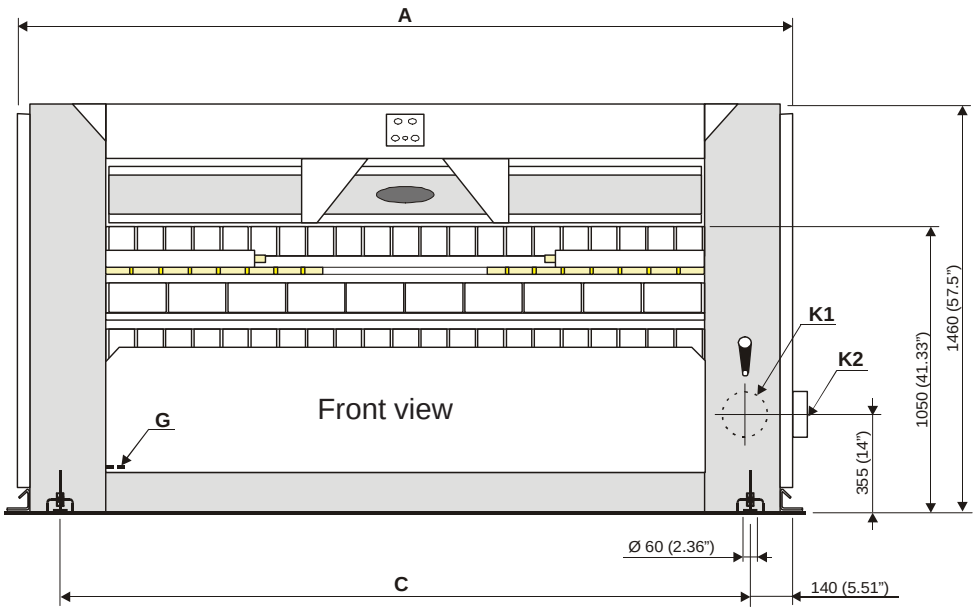
Consumptions

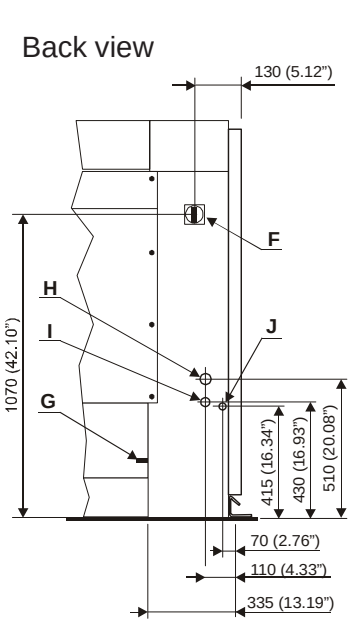
Gas heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Installed heating power	kW	39	44	52	56	65
Electric heating						
Installed electric power	kW	34,25	37,85	44,60	48,20	54,95
Installed heating power	kWh	32,85	36,45	43,20	46,80	53,55
Maximum electrical consumption	kW	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Max. steam consumption kg/h at 900 kPa		83	92	110	123	141
Inner volume steam cylinder	dm³	300	335	398	431	497

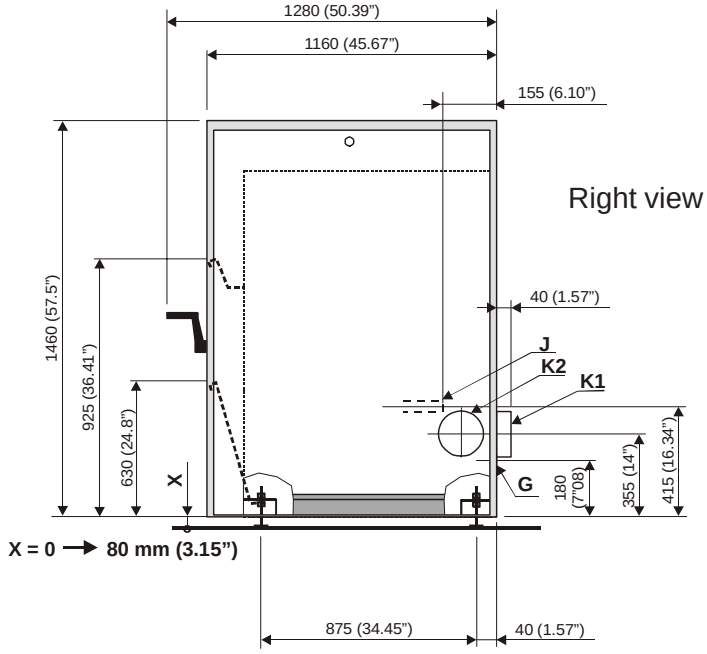
Heat loss : 3 % of installed heating power

Exhaust air max. with no pressure at 15 °C	m³/h	830	---	---	---	---

Total pressure with no flow : 880 Pa
Admissible head loss on evacuation : 200 Pa


A
K1
K2
G
Front view
1460 (57.5")
1050 (41.33")
355 (14")
Ø 60 (2.36")
C
140 (5.51")


Back view
130 (5.12")
F
H
I
J
G
1070 (42.10")
415 (16.34")
430 (16.93")
510 (20.08")
70 (2.76")
110 (4.33")
335 (13.19")


1280 (50.39")
1160 (45.67")
155 (6.10")
Right view
1460 (57.5")
925 (36.41")
630 (24.8")
X
40 (1.57")
J
K2
K1
G
180 (7"08)
355 (14")
415 (16.34")
X = 0 → 80 mm (3.15")
875 (34.45")
40 (1.57")

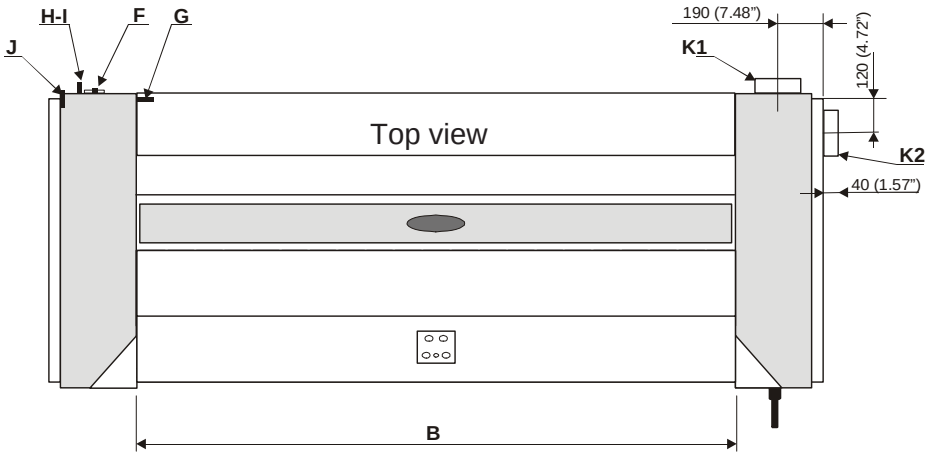

H-I
F
G
J
K1
190 (7.48")
120 (4.72")
Top view
K2
40 (1.57")
B

Diagram no. 07100120

Ironer with feeding and length folding

Characteristics		IC4	4819FLF	4821FLF	4825FLF	4828FLF	4832FLF
Ø cylinder							
Gas / Electric heating	mm		479	479	479	479	479
Steam heating	mm		457	457	457	457	457
Effective working width	mm		1910	2120	2540	2750	3170
Ironing speed							
Mini	m/min		1,5	1,5	1,5	1,5	1,5
Maxi	m/min		9	9	9	9	9
Heating surface							
Gas / Electric heating	m²		2,20	2,40	2,90	3,15	3,60
Steam heating	m²		2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)							
Gas heating	kg/h		35	37	46	51	59
Electric heating	kg/h		38	40	48	51	59
Steam heating	kg/h		57	63	75	81	93
Net weight							
Gas heating	kg		670/---	720/---	815/---	850/---	935/---
Electric heating	kg		670/---	720/---	815/---	850/---	935/---
Steam heating	kg		700	755	835	870	950
Floor area	m²		2,50	2,70	3,10	3,30	3,70

Dimensions

(A) Overall width	mm	2575	2785	3205	3415	3835
(B) Feeder width	mm	1910	2120	2540	2750	3170
(C) Width between feet	mm	2300	2510	2930	3140	3560

Connections

(F) Main switch to connect electric main cable
(G) Inlet for electric main cable
(H) Steam inlet DN 20 (3/4" BSP) (maximum supply pressure 1000 kPa)
(I) Condensate return DN 10 (3/8" BSP)
(J) Gas inlet DN 20 (3/4" BSP)
(K1 or K2) Drain of vapour or burnt gas Ø 160 mm

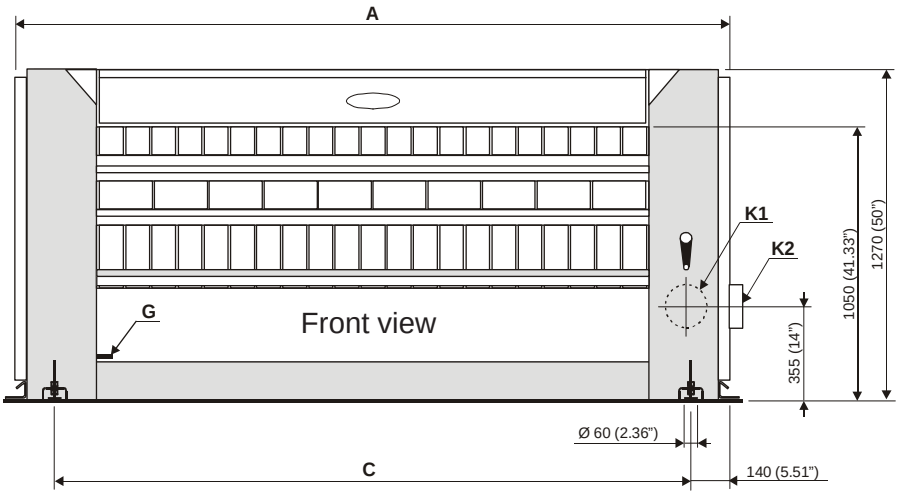
Consumptions

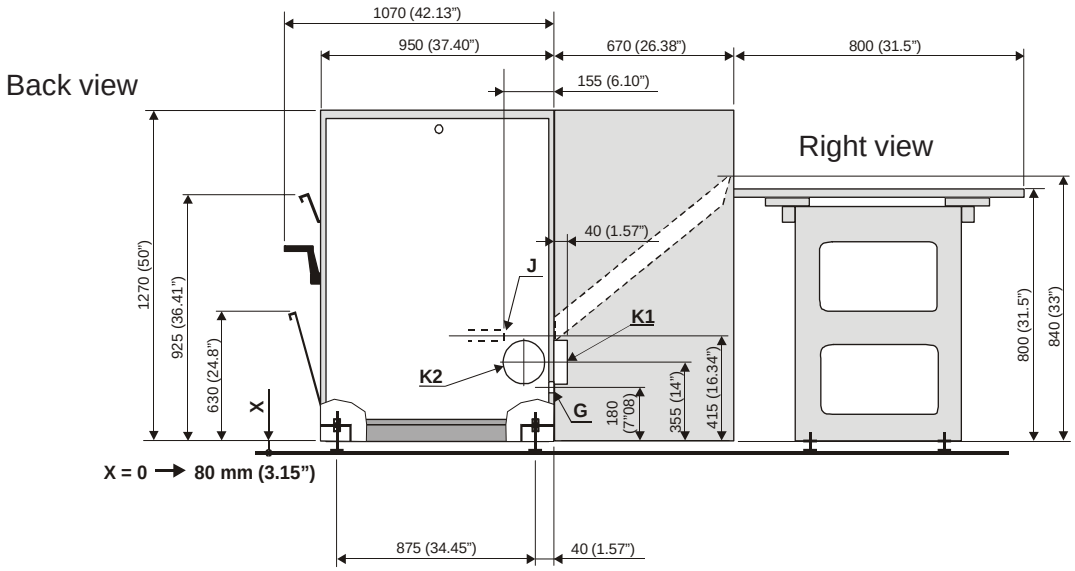
Gas heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Installed heating power	kW	39	44	52	56	65
Electric heating						
Installed electric power	kW	34,25	37,85	44,60	48,20	54,95
Installed heating power	kWh	32,85	36,45	43,20	46,80	53,55
Maximum electrical consumption	kW	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	kW	1,6	1,6	1,6	1,6	2
Maximum electrical consumption	kWh	1,3	1,3	1,3	1,3	1,6
Max. steam consumption kg/h at 900 kPa		83	92	110	123	141
Inner volume steam cylinder	dm³	300	335	398	431	497

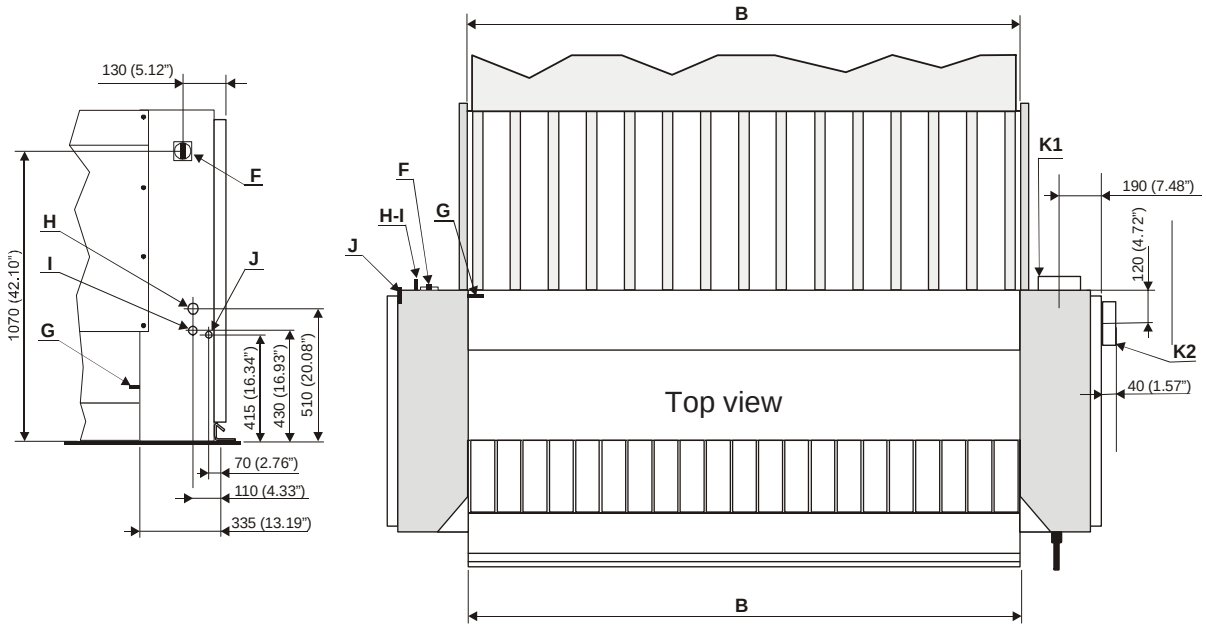
Heat loss : 3 % of installed heating power

Exhaust air max. with no pressure at 15 °C	m³/h	830	---	---	---	---

Total pressure with no flow : 880 Pa
Admissible head loss on evacuation : 200 Pa


A
K1
K2
G
Front view
1270 (50")
1050 (41.33")
355 (14")
Ø 60 (2.36")
C
140 (5.51")


Back view
1070 (42.13")
950 (37.40")
670 (26.38")
800 (31.5")
155 (6.10")
Right view
40 (1.57")
J
K1
K2
G
X
1270 (50")
925 (36.41")
630 (24.8")
180 (7"08)
355 (14")
415 (16.34")
800 (31.5")
840 (33")
X = 0 → 80 mm (3.15")
875 (34.45")
40 (1.57")


B
130 (5.12")
F
H
I
J
G
1070 (42.10")
415 (16.34")
430 (16.93")
510 (20.08")
70 (2.76")
110 (4.33")
335 (13.19")
K1
190 (7.48")
120 (4.72")
K2
40 (1.57")
H-I
Top view
B

07100119

Diagram no. 07100119

Ironer with rear load removal

Characteristics		IC4	4819R	4821R	4825R	4828R	4832R
Ø cylinder							
Gas / Electric heating	mm		479	479	479	479	479
Steam heating	mm		457	457	457	457	457
Effective working width	mm		1910	2120	2540	2750	3170
Ironing speed							
Mini	m/min		1,5	1,5	1,5	1,5	1,5
Maxi	m/min		9	9	9	9	9
Heating surface							
Gas / Electric heating	m²		2,20	2,40	2,90	3,15	3,60
Steam heating	m²		2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)							
Gas heating	kg/h		35	37	46	51	59
Electric heating	kg/h		38	40	48	51	59
Steam heating	kg/h		57	63	75	81	93
Net weight							
Gas heating	kg		770/---	810/---	860/---	940/---	1070/---
Electric heating	kg		770/---	810/---	860/---	940/---	1070/---
Steam heating	kg		790	830	900	995	1100
Floor area	m²		4,20	4,65	5,55	6,00	6,95

Dimensions

(A) Overall width	mm	2575	2785	3205	3415	3835
(B) Feeder width	mm	1910	2120	2540	2750	3170
(C) Width between feet	mm	2300	2510	2930	3140	3560

Connections

(F) Main switch to connect electric main cable
(G) Inlet for electric main cable
(H) Steam inlet DN 20 (3/4" BSP) (maximum supply pressure 1000 kPa)
(I) Condensate return DN 10 (3/8" BSP)
(J) Gas inlet DN 20 (3/4" BSP)
(K1 or K2) Drain of vapour or burnt gas Ø 160 mm

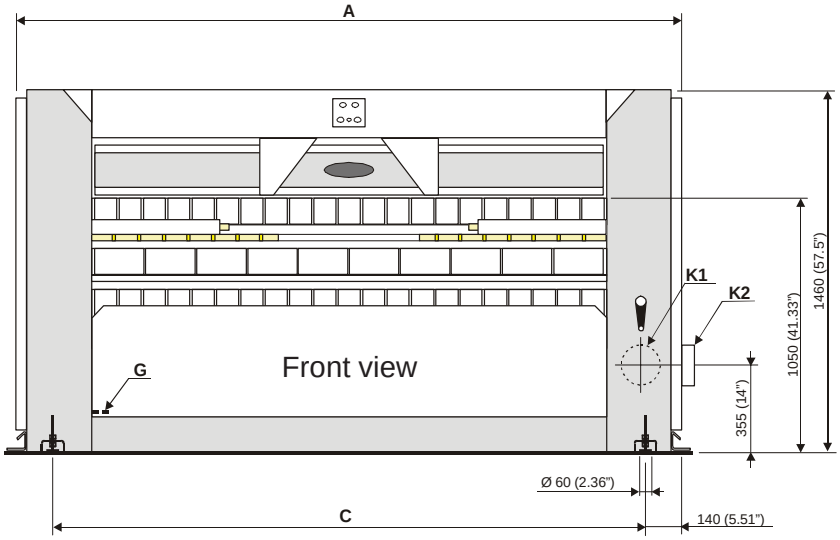
Consumptions

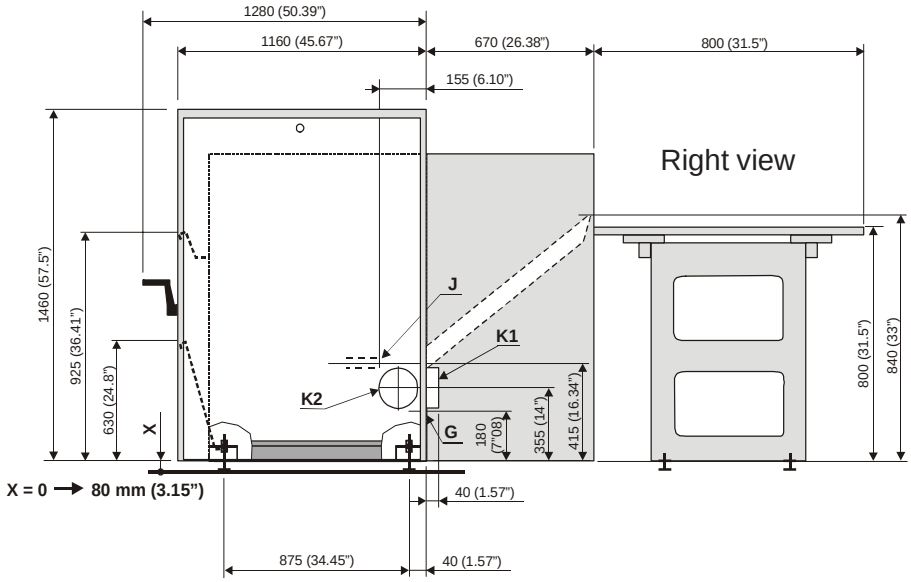
Gas heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Installed heating power	kW	39	44	52	56	65
Electric heating						
Installed electric power	kW	34,25	37,85	44,60	48,20	54,95
Installed heating power	kWh	32,85	36,45	43,20	46,80	53,55
Maximum electrical consumption	kW	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Max. steam consumption kg/h at 900 kPa		83	92	110	123	141
Inner volume steam cylinder	dm³	300	335	398	431	497

Heat loss : 3 % of installed heating power

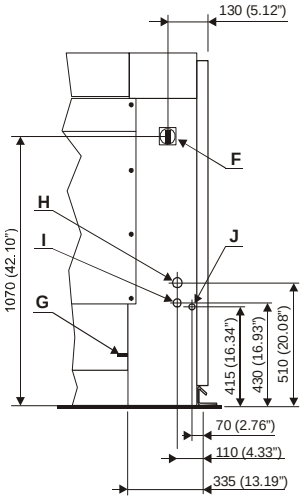
Exhaust air max. with no pressure at 15 °C	m³/h	830	---	---	---	---

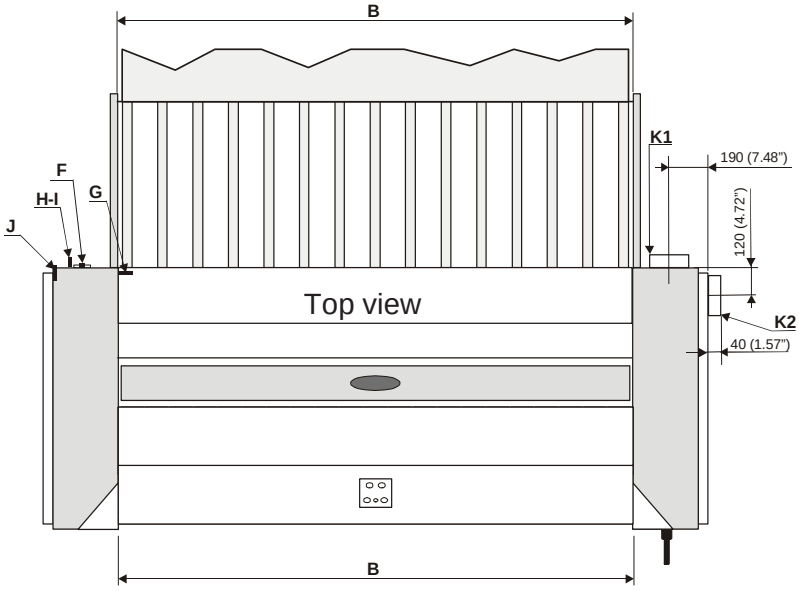
Total pressure with no flow : 880 Pa
Admissible head loss on evacuation : 200 Pa





Back view





07100121

Diagram no. 07100121

Ironer with feeding and rear load removal

Characteristics		IC4	4819FR	4821FR	4825FR	4828FR	4832FR
Ø cylinder							
Gas / Electric heating	mm		479	479	479	479	479
Steam heating	mm		457	457	457	457	457
Effective working width	mm		1910	2120	2540	2750	3170
Ironing speed							
Mini	m/min		1,5	1,5	1,5	1,5	1,5
Maxi	m/min		9	9	9	9	9
Heating surface							
Gas / Electric heating	m²		2,20	2,40	2,90	3,15	3,60
Steam heating	m²		2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)							
Gas heating	kg/h		35	37	46	51	59
Electric heating	kg/h		38	40	48	51	59
Steam heating	kg/h		57	63	75	81	93
Net weight							
Gas heating	kg		770/---	810/---	860/---	940/---	1070/---
Electric heating	kg		770/---	810/---	860/---	940/---	1070/---
Steam heating	kg		790	830	900	995	1100
Floor area	m²		4,20	4,65	5,55	6,00	6,95

Dimensions

(A) Overall width	mm	2575	2785	3205	3415	3835
(B) Feeder width	mm	1910	2120	2540	2750	3170
(C) Width between feet	mm	2300	2510	2930	3140	3560

Connections

(F) Main switch to connect electric main cable
(G) Inlet for electric main cable
(H) Steam inlet DN 20 (3/4" BSP) (maximum supply pressure 1000 kPa)
(I) Condensate return DN 10 (3/8" BSP)
(J) Gas inlet DN 20 (3/4" BSP)
(K1 or K2) Drain of vapour or burnt gas Ø 160 mm

Consumptions

Gas heating						
Installed electric power	kW	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	kWh	1,2	1,2	1,2	1,2	1,2
Installed heating power	kW	39	44	52	56	65
Electric heating						
Installed electric power	kW	34,25	37,85	44,60	48,20	54,95
Installed heating power	kWh	32,85	36,45	43,20	46,80	53,55
Maximum electrical consumption	kW	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	kW	1,6	1,6	1,6	1,6	2
Maximum electrical consumption	kWh	1,3	1,3	1,3	1,3	1,6
Max. steam consumption kg/h at 900 kPa		83	92	110	123	141
Inner volume steam cylinder	dm³	300	335	398	431	497

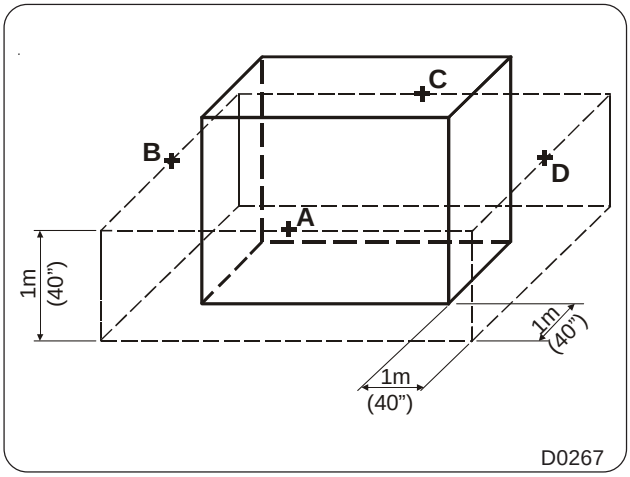
Heat loss : 3 % of installed heating power

Exhaust air max. with no pressure at 15 °C	m³/h	830	---	---	---	---

Total pressure with no flow : 880 Pa
Admissible head loss on evacuation : 200 Pa

Sound level

Airborne noise emitted by the machine (values establiqhed from measurements made on the machine at points A, B, C, D).



Weighted sound pressure level (A) in dB (A) for an IC44819FLF

	A	B	C	D
Flatwork ironer	65	64	69	68
Flatwork ironer folder	65	64	69	68
Feeder flatwork ironer folder	73	72	72	72
Flatwork ironer with rear load removal	65	64	69	68
Feeder flatwork ironer with rear load removal	73	72	72	72

Label of energetic performances (gas heating only)

The global output hg of the gas heated ironer is determinated according to a standardised method and shall not be lower than 50 %.

This output minimal level is indicated on the machine's marking by the symbol ★.

Beyond the output minimal level hereabove specified, a label of energetic performance is given to the machine according to its global output hg and according to the hereunder chart.

Symbolisation of the label	Value of the output *hg*
★ ★	50 % <= *hg* < 65 %
★ ★ ★	65 % <= *hg* < 80 %
★ ★ ★ ★	*hg* >= 80 %

The indication of the energetic performance of the ironer is of ★★★ .

You should have found an instruction handbook and keys to open the machine casings, and a maintenance poster to display in your laundry, inside your machine.

Depending on its destination, the dryer ironer is delivered bare or may be placed on a transport pallet and/or packed with plastic film.
In some cases, it may be delivered in maritime packing (wood crate).

Please refer to the handling chapter in this instruction handbook for a description of handling operations.

Unpacking

Release the machine from its pallet by cutting the plastic film and remove the pallet, removing the transport clamps with an appropriate spanner.

Check that no damage has been caused during transport.

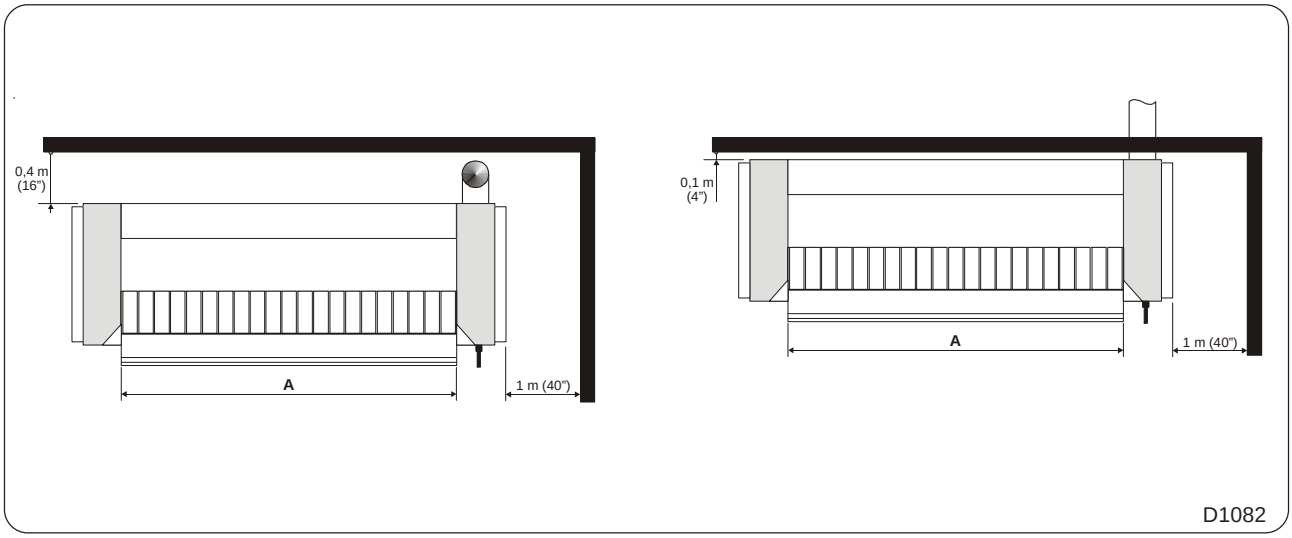
Installation

The installation must be done by competent technicians in accordance with local codes and regulations. When there are not local codes and regulations, the installation **must be comply** with european standards applicable.
The machine must be installed on a horizontal and firm floor, capable of supporting its weight. If there is a carpet, it is recommended that it should be removed from the part of the floor on which the machine is to be supported.
Ironers are provided with four leveling screws to facilitate leveling (one on each corner of the sole plate). To avoid damaging the floor surface, place 10 cm (4") square metal shims, or shims made of another appropriate material, under the ironer stands.

Place the dryer so that it is easy for the user and the service technician to do their work.

- Leave a minimum of 0.1 m (4") between the machine and the wall against which it is placed, with the condensation being removed horizontally, or 0.4 m (16") when the condensation extraction runs vertically between the machine and the wall.
- Leave at least 1 m (40") **(according to the recommendation in standard EN 60204)** between the machine, a wall or any other machine at the sides.

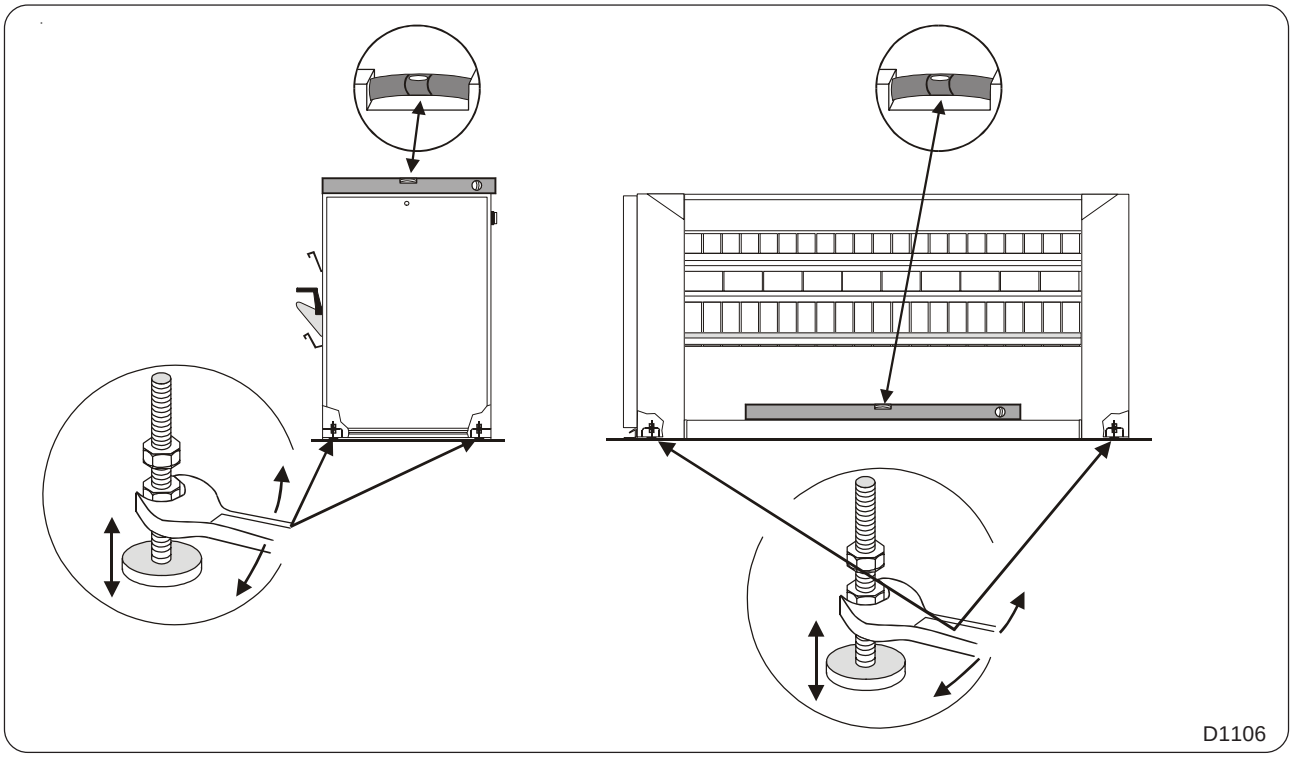
However, note that if you can, it is recommended that you should leave sufficient space for maintenance of the heating box to avoid having to move the dryer (minimum length A on the left side).



Mechanical installation

Adjust the nuts with a spanner and adjust the dryer ironer so that it is horizontal and that its four stands are perfectly vertical.
Check with a spirit level placed on the sole plate for the longitudinal direction and the machine top cover for the transverse direction (see sketch).
The maximum stand height adjustment is 80 mm (3").

Tighten the lock nuts after adjustment.



Working place lighting

The lighting should be designed so as to avoid eye strain for the operator; it should be uniform without any glare, and should be sufficient to detect any hazards.

The average lighting value on the feeding table recommended by the clothing industry for inspecting linen is **500** lux.

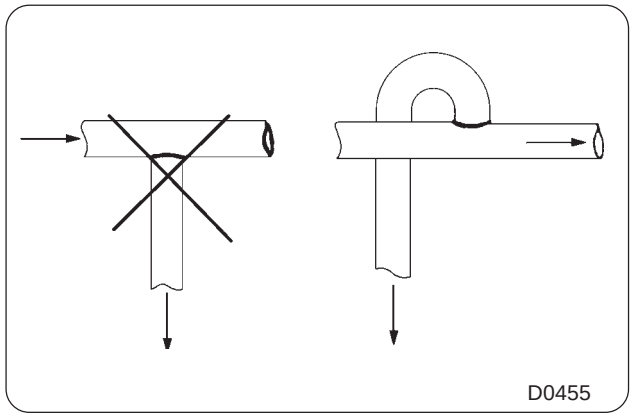
Whenever possible, the working place should be illuminated by daylight.

Steam and condensate connections

There is always a risk that a certain amount of water will be carried in steam.

Water is carried in the lower parts of the supply tubes, and steam in the upper parts.

Make a swan neck branch-T on the main tube to prevent this water damaging the machine heating system. This will ensure that only steam is retrieved without any condensed water.



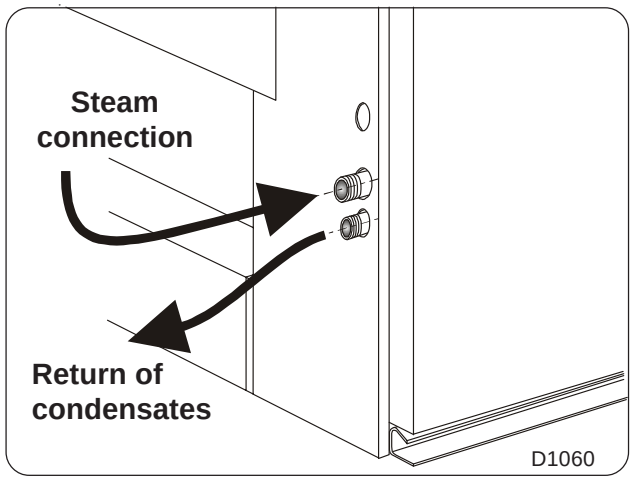
Steam connection DN 20 (3/4" BSP)

The customer must install a line purge, a manually closing valve with handwheel lockable in off position (do not use a 1/4 turn valve) and a filter on the supply side of the ironer.

Maximum supply pressure **1000 kPa max.**

Condensate connection DN 10 (3/8" BSP)

The customer must install a purge valve with float closed with an incondensibles drainage device and a steam trap (example : Sarco ref. FT10C - G 3/4" PN 25 or Gestra ref : UNA15 h - G 3/4" PN 25), a by-pass, a non-return valve and a manual closing valve lockable in off position.



A Ironer

B Line trap (supplied by the client)

C Return of condensates

D The valve is lockable in the closed position (supplied by the client)

E Filter (supplied by the client)

F Steam trap (supplied by the client)

G By-pass (needle valve) (supplied by the client)

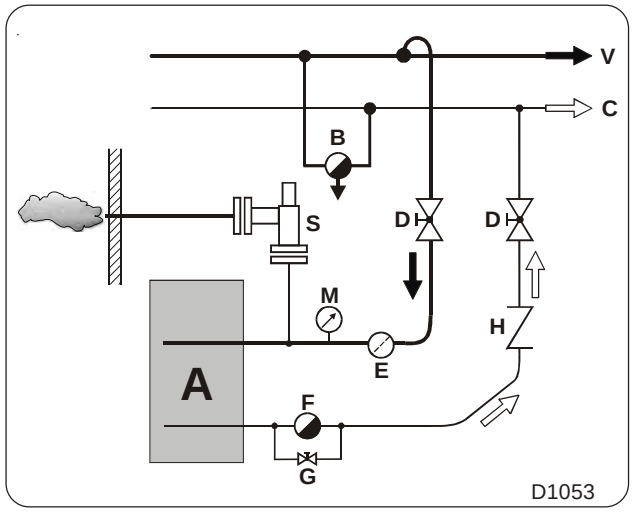
H Non-return valve (supplied by the client)

M Pressure gauge (supplied by the client)

N Thermal insulation for the pipework (supplied by the client).

S Safety valve (supplied by the client)

V Steam inlet



Safety valve connections

Note :

The connection of a safety valve is compulsory in order to conform to the pressurised equipment directive (DESP).

The valve must be CE certified in category IV.

Its size must vary according to the characteristics of the boiler, to the volume of the pipes upstream of the valve and the volume of the appliance to be protected.

The drainage connector of the safety valve must absolutely be connected to the outside of the building and out of reach of human interference

(on the roof for example).

In the event of excess pressure, the exhaust outlet from the valve can be dangerous due to the pressure and high temperature of the steam.

Condensate connection

Note :

After around 10 metres, the pressure loss in the condensate return pipes is too great.

It is therefore necessary to calculate its diameter according to the length of the pipes from the bleeders up to the receiver tank, compared to the admissible pressure = 300 kPa maxi (3 bar).

Ironer electricity power supply

CAUTION

Prior to use, the ironer should be plugged into a correctly earthed power socket complying with the standards in force.

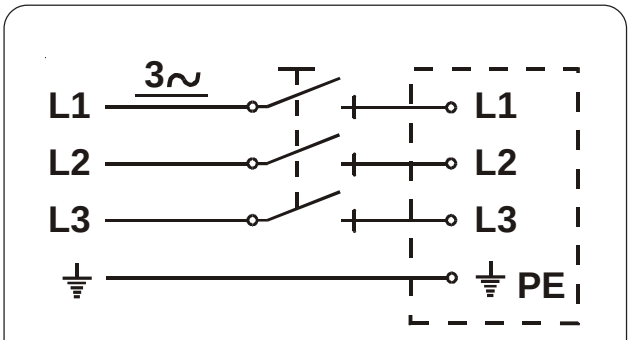
SAFETY

The electrical installation of the machine must be undertaken by qualified personnel.

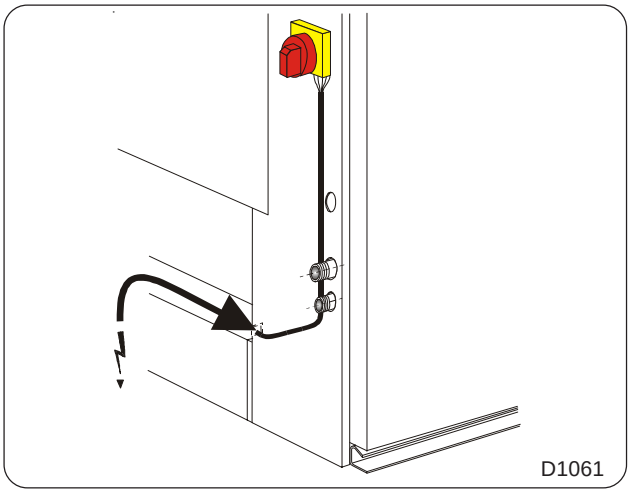
CAUTION

Ensure that the electrical voltage is correct and that the power of your supply is sufficient, before connecting the machine.

For each machine, install a fixed multipole circuit breaker (or fuses protector) in the laundry main cabinet.



Pass the machine power supply cable through the orifice (see sketch).



Connect the power supply cable on the machine main switch.

Check the order of phases on the switch terminals (see marks L1, L2, L3 and PE on the switch).

(Check operation, see chapter no.10).

NOTE : you must respect the fan rotation direction.

Connection diagrams for the control circuit power supply transformer (T1) as a function of the various customer power supply voltages.
400 volt power supply.

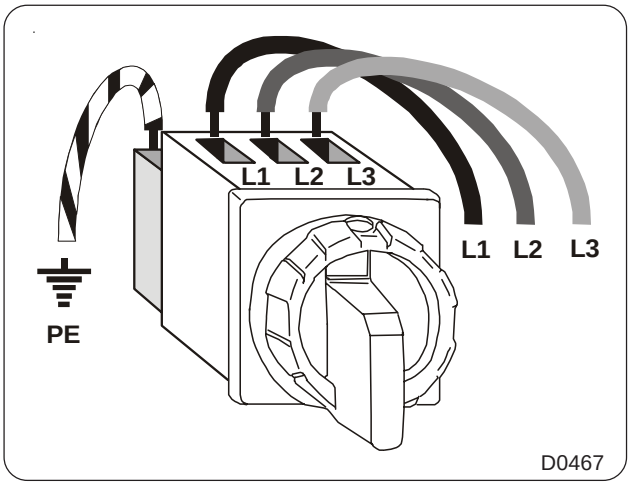
Measure the power supply voltage at the transformer primary with a voltmeter between the transformer 0 and 400 volt terminals.

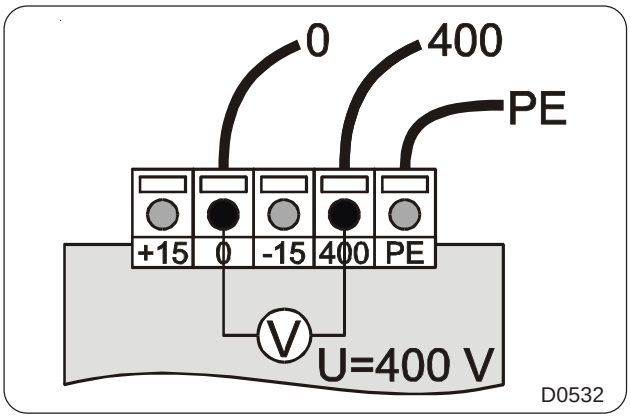
- If the voltage is equal to 400 volts, do not touch the transformer connection which must be as shown in the adjacent figure.

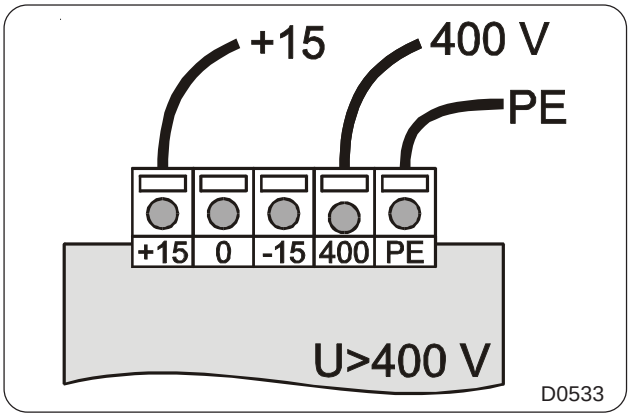
- If the voltage is > 400 volts (for example: 420 or 430 volts), connect the wires to the transformer as shown in the adjacent figure.

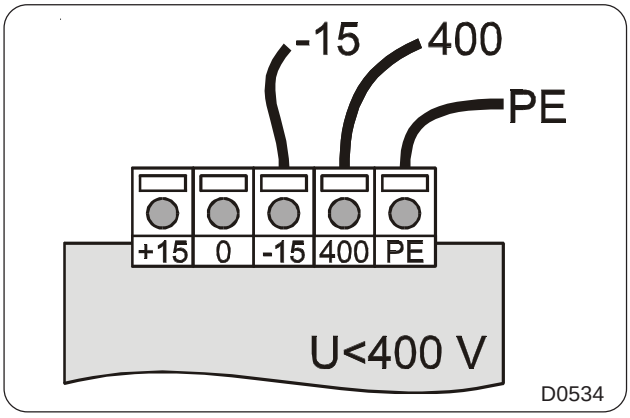
Note : we recommend that you should adopt this solution even if the voltage is normally equal to 400 volts but may be subjected to temporary variations, so that you do not apply an overvoltage to the electrical equipment in your machine.

- If the voltage is significantly < 400 volts (for example: 370 or 380 volts), connect the wires to the transformer as shown in the adjacent figure.









The feeder cable sections mentioned in our literature are given **only as a guide.**

To obtain a value perfectly suited to your own application and which takes account of the different correction factors in respect of your plant, refer to the tables below.

Table 1 (in accordance with EN standard 60204-1-1992)

Values given for :

- Cable with copper conductors
- Cable with PVC insulation (for other insulants see Table 3)
- Ambient temperature 40 °C max. (for others see Table 2)
- Three-phase cable under load without including starting currents
- BT / C/ E cable layout.

Cable Section (mm²)	Maximum Admissible Current (amperes) Seated in cable Duct or Cable Trough	Wall fixing	Cable tray
	B2	C	E
3 x 1.5	12.2	15.2	16.1
3 x 2.5	16.5	21	22
3 x 4	23	28	30
3 x 6	29	36	37
3 x 10	40	50	52
3 x 16	53	66	70
3 x 25	67	84	88
3 x 35	83	104	114
3 x 50	-	123	123
3 x 70	-	155	155

Table 2

(Correction factors for different ambient temperatures)

Ambient Temperature	Correction Factor
30 °C	1.15
35 °C	1.08
40 °C	1.00
45 °C	0.91
50 °C	0.82
55 °C	0.71
60 °C	0.58

Table 3

(correction factor for different cable insulating materials)

Insulating Material	Max. Working Temperature range	Correction Factor
PVC	70 °C	1.00
Natural or Synthetic Rubber	60 °C	0.92
Silicone Rubber	120 °C	1.60

Table 4
(B2, C and E correction factors for cable grouping)

Number of Cables	B2 Seated in Cable Duct	C Wall Fixing or Cable Trough	E Cable Tray
1	1.00	1.00	1.00
2	0.80	0.85	0.87
4	0.65	0.75	0.78
6	0.57	0.72	0.75
9	0.50	0.70	0.73

The total current included for using Table 1 should be the maximum rated current for the machine divided by the product of the different correction factors. Other correction factors may also be applied ; consult the cable manufacturers.

Calculation : Example

- The machine has a rated current of 60 A.
- The ambient temperature is 45 °C ; Table 2 gives a correction factor of 0.91.
- Rubber cable insulant : Table 3 gives a correction factor of 0.92.
- The cable is fixed directly to the wall (Column C), with 2 cables side by side. Table 4 gives a correction factor of 0.85.

$$\text{Total current : } \frac{60\ \text{A}}{0.91 \times 0.92 \times 0.85} = 84\ \text{A}$$

Taking Column C in Table 1 (wall fixing), we obtain a minimum cable section of : **3 x 25 mm².**

Machine type	Supply Voltage	Installed Power	Heating	Rated intensity	Main Switch	Connection Cable Section	Fuse
1.9 m	380/415 V 3+E ~ 50/60 Hz	1 kW	Gas/Steam	5 A	3 x 16 A	4 x 2,5 mm²	3 x 16 A
1.9 m	380/415 V 3+E ~ 50/60 Hz	30.7 kW	Electric	45 A	3 x 63 A	4 x 10 mm²	3 x 63 A
2.1 m	380/415 V 3+E ~ 50/60 Hz	1 kW	Gas/Steam	5 A	3 x 16 A	4 x 2,5 mm²	3 x 16 A
2.1 m	380/415 V 3+E ~ 50/60 Hz	33.85 kW	Electric	45 A	3 x 63 A	4 x 10 mm²	3 x 63 A
2.5 m	380/415 V 3+E ~ 50/60 Hz	1 kW	Gas/Steam	5 A	3 x 16 A	4 x 2,5 mm²	3 x 16 A
2.5 m	380/415 V 3+E ~ 50/60 Hz	40.15 kW	Electric	58 A	3 x 80 A	4 x 16 mm²	3 x 80 A
2.8 m	380/415 V 3+E ~ 50/60 Hz	1 kW	Gas/Steam	5 A	3 x 16 A	4 x 2,5 mm²	3 x 16 A
2.8 m	380/415 V 3+E ~ 50/60 Hz	43.3 kW	Electric	63 A	3 x 80 A	4 x 16 mm²	3 x 80 A
3.2 m	380/415 V 3+E ~ 50/60 Hz	1 kW	Gas/Steam	5 A	3 x 16 A	4 x 2,5 mm²	3 x 16 A
3.2 m	380/415 V 3+E ~ 50/60 Hz	54.95 kW	Electric	80 A	3 x 100 A	4 x 25 mm²	3 x 100 A

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Gas connection

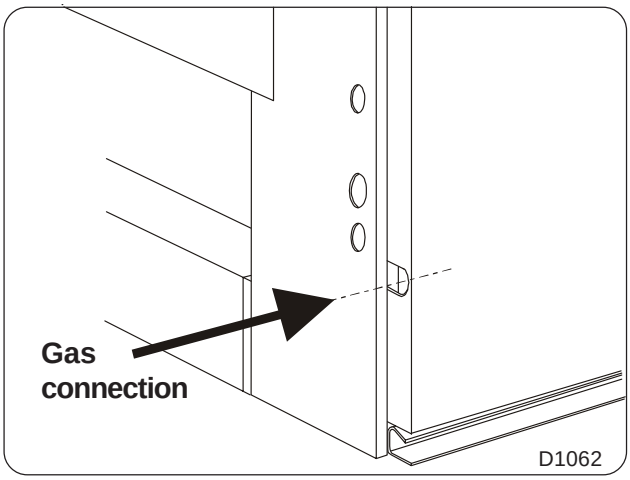
The installation, connection and gas arrival adjustments for the machine must be done by qualified personnel only.

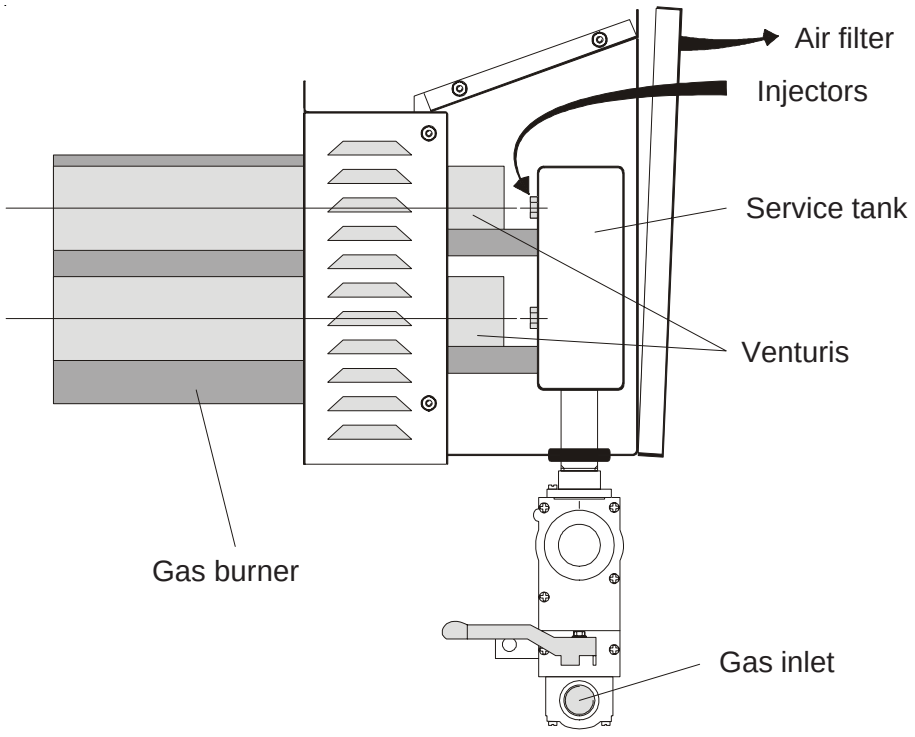
Gas supply DN 20 (3/4" BSP)

The customer must install a filter and a manual stop valve on the supply side of the machine if natural gas is used.

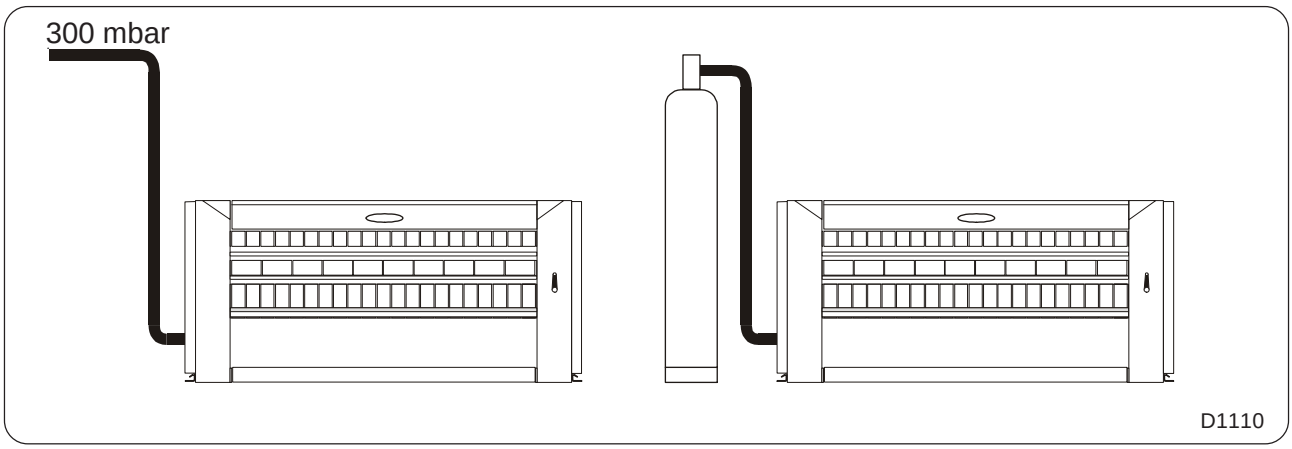
For butane or propane, the customer must install a filter, a manual closing valve and a pressure reducer.

Connect the installation at the back of the machine.

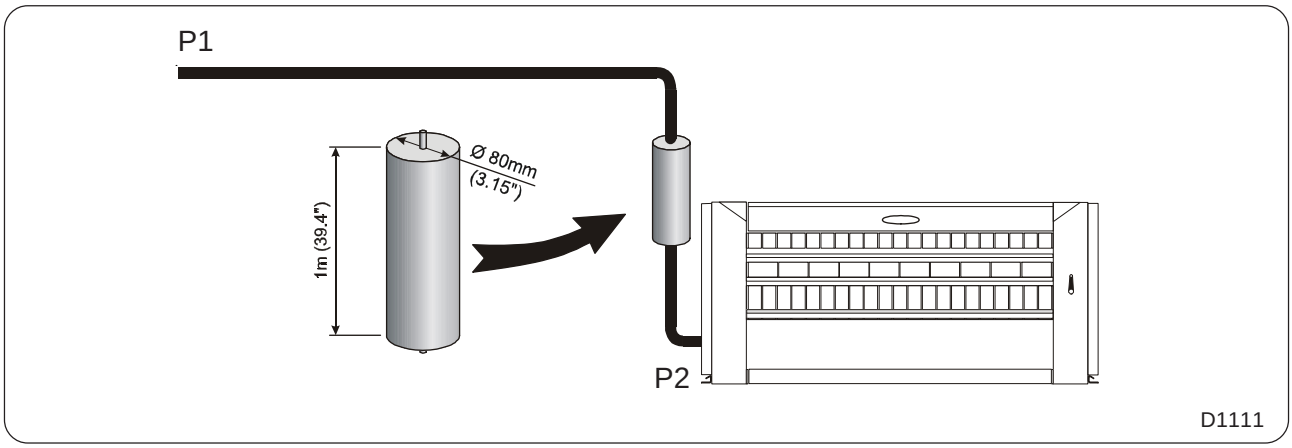




If the machine is connected to gas mains of 300 mbar or directly behind a gas bottle, it is vital that a pressure reducing valve be added as close as possible to the machine.



If the gas inlet pressure (P1) is identical to the nominal pressure of the machine (P2), it is possible to insert a reservoir as close as possible to the machine in order to protect against any falls in pressure when the machine starts up.



The machine is adjusted at the plant to be suitable for the kind of gas specified on the order. If you have to supply your machine with gas in a family different from the gas for which your machine was adjusted, proceed as follows :

Check that the diameter of the injectors is adequate for the kind of gas of your installation (see table of injectors). The machine is delivered with extra injectors in a plastic envelope.

Testing pressures

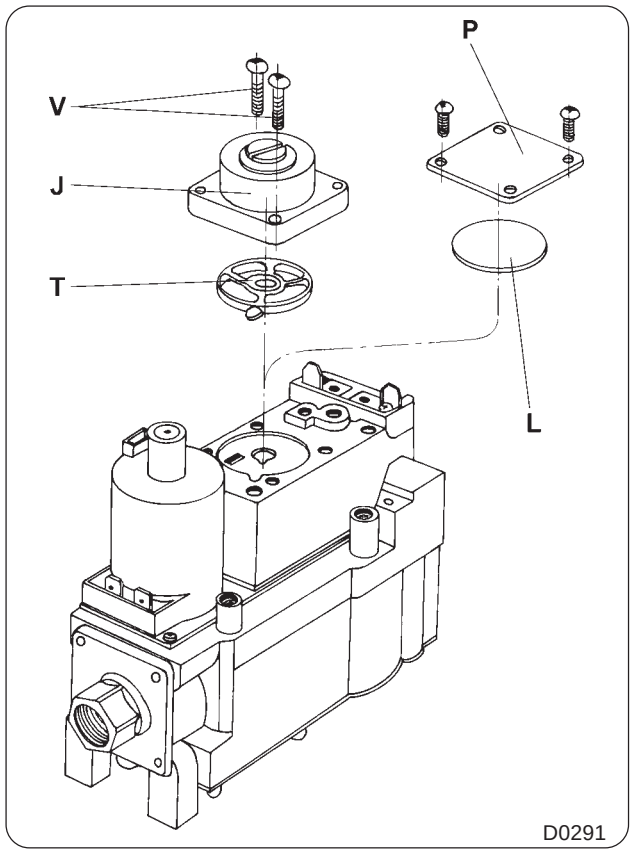
According to the EN 437 standard, the values of the testing pressures mentioned in our various documents are values for static pressures taken at the gas inlet connection of the machine; the heating of the machine being on.

Changing to a gas in the same family (type H or L)

- Adjust the gas outlet pressure (see correspondence in the tables).

Changing to a gas in a different family (from type H or L to butane or propane)

- Change the 3 injectors with joints (see correspondence in the tables).
- Unscrew the fixing screws (V) and remove the adjusting head (J) as well as its cork (T), keep these parts in case a change would be necessary.
- Replace it by the cork (L) and the plate (P).
- Screw the two screws and block.



Changing to a gas in a different family (from butane or propane to type H or L)

- Change the 3 injectors with joints (see correspondence on the tables).
- Unscrew the fixing screws (V) and remove the plate (P) as well as the cork (L), keep these parts in case a change would be necessary.
- Set the cork (T) and the adjustment head (J).
- Screw the two screws (V) and block.

IMPORTANT

Adjustments should be made by qualified personnel only.

Adjustment and checking of the outlet pressure

The gas outlet pressure of the solenoid valve is adjusted at the factory. If you have to make another adjustment, proced as follows.

A Inlet

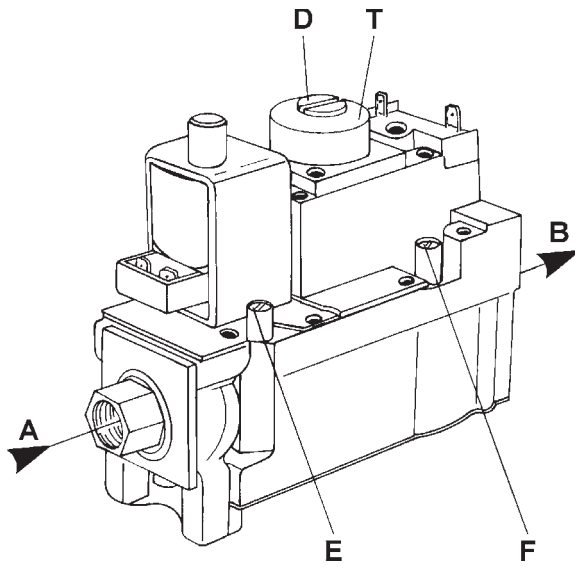
B Outlet

D Outlet pressure regulator adjustment screw plug

E Inlet pressure tapping

F Outlet pressure tapping

T Head regulation



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1/ Close the gas inlet and remove the binding screw from the pressure tapping (F) and connect the manometer tube.

2/ The electricity supply must be energized otherwise gas will not be supplied to the burner.

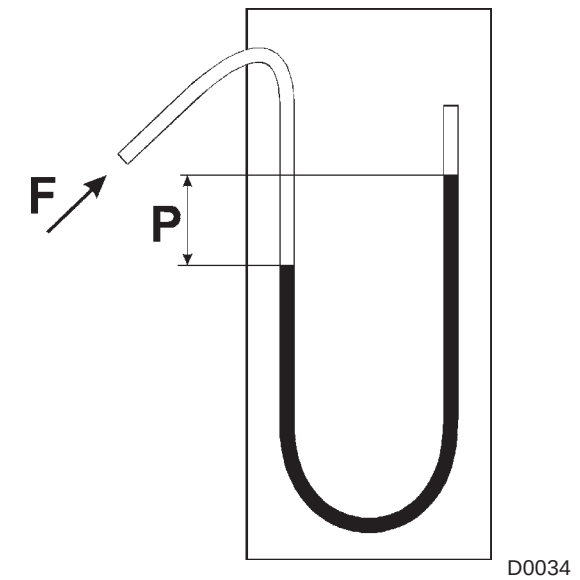
3/ Open and check the gas inlet main burner using the manometer on the pressure tapping (F).

4/ Remove pressure regulator cap (D).

5/ Using a screwdriver, slowly turn the adjustment screw until the required pressure (P) is indicated on manometer (see tables on the following pages).

Turn the adjustment screw clockwise to increase and counter-clockwise to decrease gas pressure.

6/ Reset the pressure regulator cap, close off the gas inlet, remove the manometer tube and put the binding screw back in (F).



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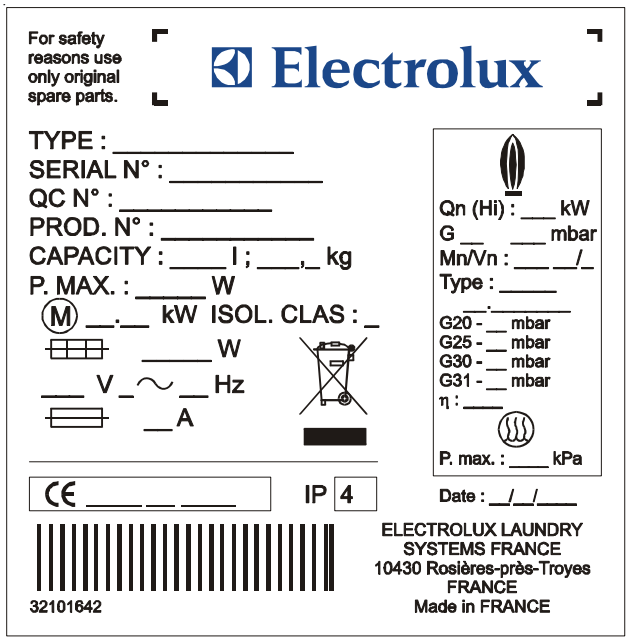
Legend of symbols used

I: machine working with only one gas family
II: machine working with two gas families
1: 1st family : caol gas or town gas (for information : not used here)
2: 2nd family : natural gas
3 : 3th family : liquefied petroleum gas (LPG)
H : natural gas with high calorific value (type G20)
L : natural gas with low calorific value (type G25)
E : natural gas with high and low calorific value (type G20)
LL : natural gas with low calorific value (type G25)
Esi : natural gas with high and low calorific value with adjustment (type G20)
B : butane gas (type G30)
P : propane gas (type G31)
B/P : butane and propane gas (type G30 and G31)
3+ : butane/propane gas with couple of pressure 30/37 (type G30 and G31)

AT :	Austria	ES :	Spain	IT :	Italy
BE :	Belgium	FI :	Finland	LU :	Luxemburg
CH :	Switzerland	FR :	France	NL :	Netherlands
CZ :	Czech Republic	GB :	Great Britain	NO :	Norway
DE :	Germany	GR :	Greece	PT :	Portugal
DK :	Denmark	IE :	Ireland	SE :	Sweden

Qn (Hi) : nominal heat emission express in relation to the net calorific value
Mn : nominal mass (for butane/propane gas)
Vn : nominal volume (for naturel gas)



Country	Category	Gas	Pressure (mbar)
AT	I2H	G20	20
DE	I2E I3P	G20 G31	20 50
BE	I2E(S)B I3P	G20/G25 G31	20/25 37
DK-FI-SE-IT	I2H	G20	20
FR	II2ESI3P	G20/G25 G31	20/25 37/50
CH-CZ-ES-GB-GR-IE-PT	II2H3P	G20 G31	20 37
ES-CH	II2H3P	G20 G31	20 50
NL	II2L3P	G25 G31	25 50
LU	I2E	G20	20

TABLE OF CORRESPONDENCES - Ironer 1.9 m

Categorie index	Type of gas	Working supply pressure in mbar	Hi	Ø of injectors in mm	Pressure at injectors in mmH_2O	Heat emission Qn in kW (Hi)	Consumption Mn in kg/h	Consumption Vn in m³/h
*2E, 2H, 2ESI	G 20	20	34.02 MJ/m³	3.30	97	39	-	4.13
2L, 2ESI	G25	25	29.25 MJ/m³	3.30	133	39	-	4.80
3 +	G30	28-30	45.65 MJ/kg	1.85	-	39	3.07	-
	G31	37	46.34 MJ/kg	1.85	-	39	3.03	-
3 B / P	G30	50	45.65 MJ/kg	1.60	-	39	3.07	-
	G31	50	46.34 MJ/kg	1.60	-	39	3.03	-
3 B / P	G30	30	45.65 MJ/kg	1.85	-	39	3.07	-
	G31	30	46.34 MJ/kg	1.85	-	39	3.03	-
3 P	G31	50	46.34 MJ/kg	1.70	-	39	3.03	-

* For Belgium, no work is allowed between G20 and G25.

TABLE OF CORRESPONDENCES - Ironer 2.1 m

Categorie index	Type of gas	Working supply pressure in mbar	Hi	Ø of injectors in mm	Pressure at injectors in mmH_2O	Heat emission Qn in kW (Hi)	Consumption Mn in kg/h	Consumption Vn in m³/h
*2E, 2H, 2ESI	G 20	20	34.02 MJ/m³	3.40	102	44	-	4.65
2L, 2ESI	G25	25	29.25 MJ/m³	3.40	143	44	-	5.41
3 +	G30	28-30	45.65 MJ/kg	1.95	-	44	3.46	-
	G31	37	46.34 MJ/kg	1.95	-	44	3.41	-
3 B / P	G30	50	45.65 MJ/kg	1.70	-	44	3.46	-
	G31	50	46.34 MJ/kg	1.70	-	44	3.41	-
3 B / P	G30	30	45.65 MJ/kg	1.95	-	44	3.46	-
	G31	30	46.34 MJ/kg	1.95	-	44	3.41	-
3 P	G31	50	46.34 MJ/kg	1.80	-	44	3.41	-

* For Belgium, no work is allowed between G20 and G25.

Note : **G20 (H) = naturel gas, Lacq type (20 mbar)**
G25 (L) = naturel gas, Groningue type (20 or 25 mbar)
G30 = butane gas (28/30, 50 mbar)
G31 = propane gas (28/30, 37, 50 mbar)

TABLE OF CORRESPONDENCES - Ironer 2.5 m

Categorie index	Type of gas	Working supply pressure in mbar	Hi	Ø of injectors in mm	Pressure at injectors in mmH_2O	Heat emission Qn in kW (Hi)	Consumption Mn in kg/h	Consumption Vn in m³/h
*2E, 2H, 2ESI	G 20	20	34.02 MJ/m³	3.70	100	52	-	5.50
2L, 2ESI	G25	25	29.25 MJ/m³	3.70	135	52	-	6.40
3 +	G30	28-30	45.65 MJ/kg	2.10	-	52	4.10	-
	G31	37	46.34 MJ/kg	2.10	-	52	4.04	-
3 B / P	G30	50	45.65 MJ/kg	1.85	-	52	4.10	-
	G31	50	46.34 MJ/kg	1.85	-	52	4.04	-
3 B / P	G30	30	45.65 MJ/kg	2.10	-	52	4.10	-
	G31	30	46.34 MJ/kg	2.10	-	52	4.04	-
3 P	G31	50	46.34 MJ/kg	2.00	-	52	4.04	-

* For Belgium, no work is allowed between G20 and G25.

TABLE OF CORRESPONDENCES - Ironer 2.8 m

Categorie index	Type of gas	Working supply pressure in mbar	Hi	Ø of injectors in mm	Pressure at injectors in mmH_2O	Heat emission Qn in kW (Hi)	Consumption Mn in kg/h	Consumption Vn in m³/h
*2E, 2H, 2ESI	G 20	20	34.02 MJ/m³	3.80	105	56	-	5.92
2L, 2ESI	G25	25	29.25 MJ/m³	3.80	150	56	-	6.90
3 +	G30	28-30	45.65 MJ/kg	2.20	-	56	4.41	-
	G31	37	46.34 MJ/kg	2.20	-	56	4.35	-
3 B / P	G30	50	45.65 MJ/kg	2.00	-	56	4.41	-
	G31	50	46.34 MJ/kg	2.00	-	56	4.35	-
3 B / P	G30	30	45.65 MJ/kg	2.20	-	56	4.41	-
	G31	30	46.34 MJ/kg	2.20	-	56	4.35	-
3 P	G31	50	46.34 MJ/kg	2.05	-	56	4.35	-

* For Belgium, no work is allowed between G20 and G25.

Note : **G20 (H) = naturel gas, Lacq type (20 mbar)**
G25 (L) = naturel gas, Groningue type (20 or 25 mbar)
G30 = butane gas (28/30, 50 mbar)
G31 = propane gas (28/30, 37, 50 mbar)

TABLE OF CORRESPONDENCES - Ironer 3.2 m

Categorie index	Type of gas	Working supply pressure in mbar	Hi	Ø of injectors in mm	Pressure at injectors in mmH_2O	Heat emission Qn in kW (Hi)	Consumption Mn in kg/h	Consumption Vn in m³/h
*2E, 2H, 2ESI	G 20	20	34.02 MJ/m³	4.00	114	65	-	6.87
2L, 2ESI	G25	25	29.25 MJ/m³	4.00	160	65	-	7.99
3 +	G30	28-30	45.65 MJ/kg	2.30	-	65	5.12	-
	G31	37	46.34 MJ/kg	2.30	-	65	5.05	-
3 B / P	G30	50	45.65 MJ/kg	2.05	-	65	5.12	-
	G31	50	46.34 MJ/kg	2.05	-	65	5.05	-
3 B / P	G30	30	45.65 MJ/kg	2.30	-	65	5.12	-
	G31	30	46.34 MJ/kg	2.30	-	65	5.05	-
3 P	G31	50	46.34 MJ/kg	2.10	-	65	5.05	-

* For Belgium, no work is allowed between G20 and G25.

Note : **G20 (H) = naturel gas, Lacq type (20 mbar)**
G25 (L) = naturel gas, Groningue type (20 or 25 mbar)
G30 = butane gas (28/30, 50 mbar)
G31 = propane gas (28/30, 37, 50 mbar)

IMPORTANT

Tightness test after installation

The gas leak test is performed as follows:

1/ Paint pipe joints, pilot gas tubing connections and inspect outlets with rich soap and water solution; do not use an aggressive soap.

2/ Put the machine into service. Bubbles indicate a gas leak.

3/ Eliminate this leak.

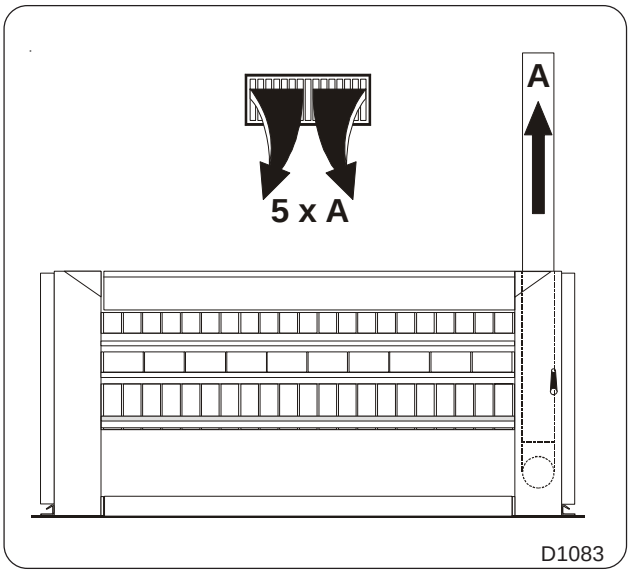
Check-out

Before leaving, put the appliance into operation and allow to run a complete cycle. Watch to ensure that all burner system components function correctly.

Connection of the ironer evacuation systeme

Fresh air inlet

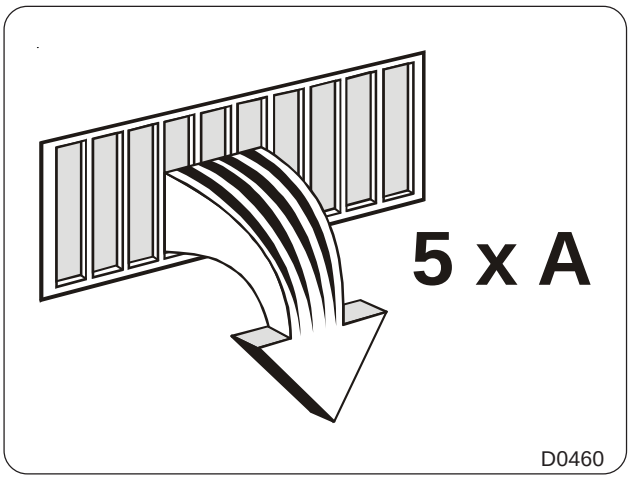
To allow the dryer ironer to work at its best, it is important that the laundry air inlet passes through an opening from the outside.
The fresh air arrival must be equivalent to the volume of evacuated air(please refer to the output of the fans at zero pressure in the technical characteristics).
Note: in the case of several machines, these values should be added together.
In order to prevent drafts in the room, the best solution is to place the air inlet behind the machine.



In the case of a machine with gas heating, it is essential that the rooms should be ventilated.

The free section of the air inlet must be 5 times greater than the section of the evacuation pipe.

Do not forget to allow for the fact that grills often occupy half the total area of the free air opening.



Evacuation duct

It is recommended that a separate smooth-walled evacuation duct should be connected to each dryer, providing the least possible resistance to air.

Check that the shaft flow is at least twice the capacity of the ironer exhaust fan.

To prevent any risk of burnings, the vapours' evacuation duct of the flatwork ironers of the linen has to be temperature insulated (to be done by the customer).

It is essential that the diameter of the evacuation pipe should be selected as a function of each installation so that the pressure loss never exceed 200 Pa (0.029 psi) (value measured at ambient temperature).

These conditions are **ABSOLUTELY ESSENTIAL** for correct working of the ironer.

Electric, steam heating specifications.

Fan maximum flow rate with no pressure : 880 Pa.

Average temperature of exhaust at the machine outlet :

- electric heating: 65 °C (150 °F)

- steam heating : 65 °C (150 °F)

Gas heating specifications.

Fan maximum flow rate with no pressure : 880 Pa.

Average temperature of exhaust at the machine outlet for gas heating : 100 °C (212 °F)

For gas heating, the required combustion fresh air supply should be not less than 2 m^3/h (1.17 cfm) per kW :

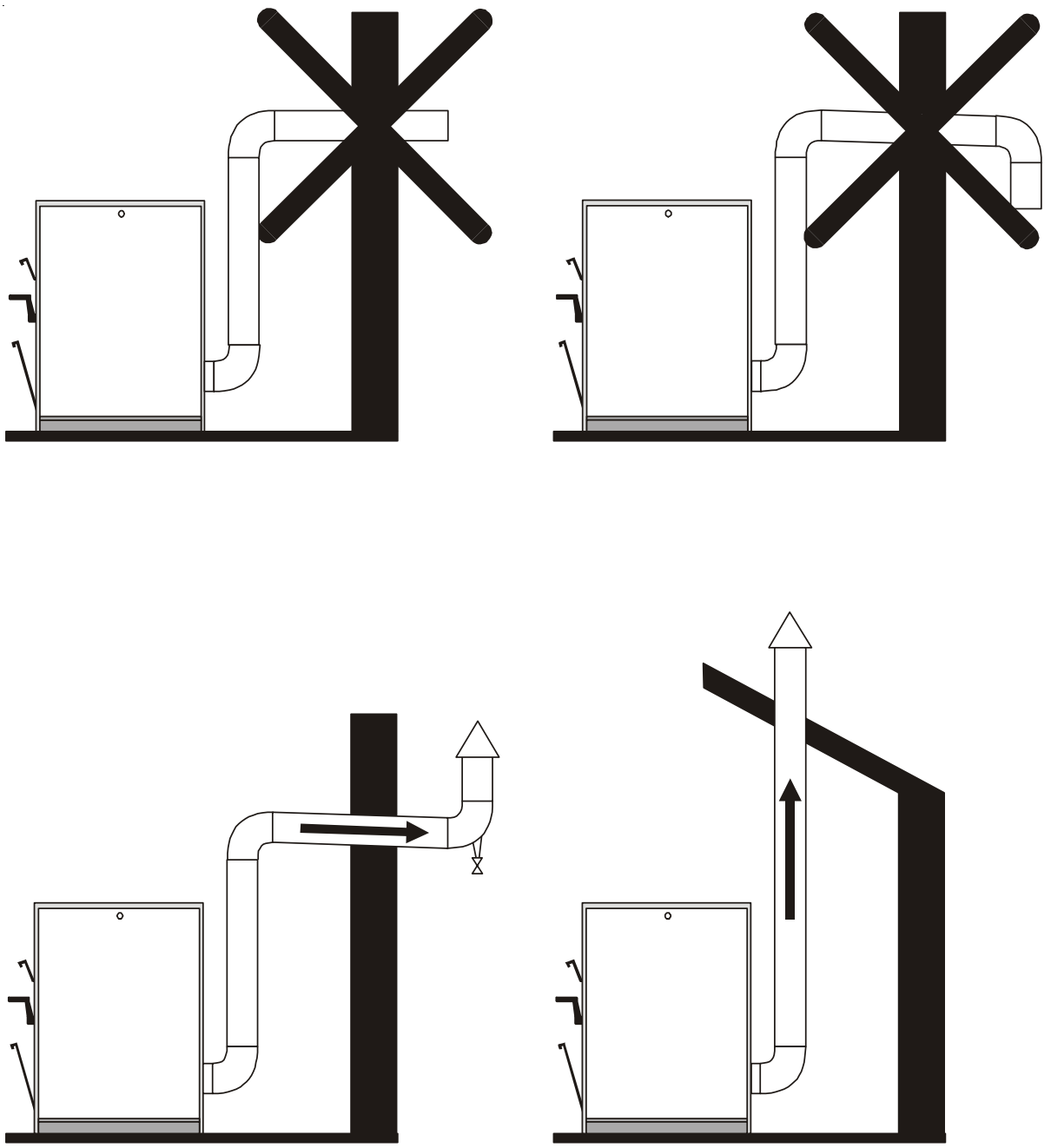
- either 78 m^3/h (46 cfm) for a 1.90 m (75") machine
- or 88 m^3/h (52 cfm) for a 2.10 m (83") machine
- or 104 m^3/h (61 cfm) for a 2.50 m (98") machine
- or 112 m^3/h (66 cfm) for a 2.80 m (110") machine
- or 130 m^3/h (77 cfm) for a 3.20 m (126") machine

NOTE : if the flow is insufficient due to an excessive pressure loss, a safety pressure switch will automatically switch the heating off.

Values of the adjustment of safety pressure switch :

- either 147 Pa (15 mmH_2O) for a 1.90 m (75") machine
- or 127,5 Pa (13 mmH_2O) for a 2.10 m (83") machine
- or 88 Pa (9 mmH_2O) for a 2.50 m (98") machine
- or 59 Pa (6 mmH_2O) for a 2.80 m (110") machine
- or 49 Pa (5 mmH_2O) for a 3.20 m (126") machine

The duct must lead to the outside and must be fitted with protection against the weather and foreign bodies.



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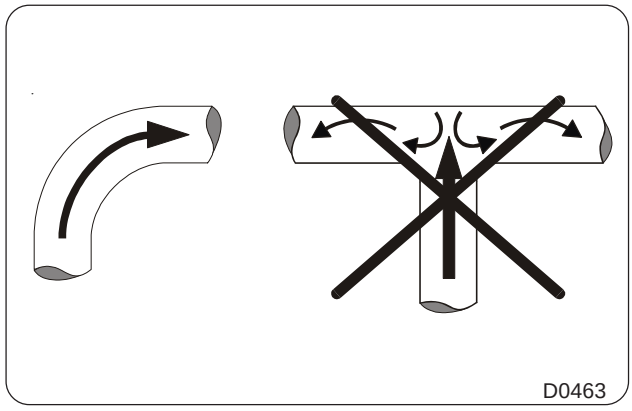
Evacuation system if several dryers are connected to a common evacuation duct (except for the gas haeting machines).

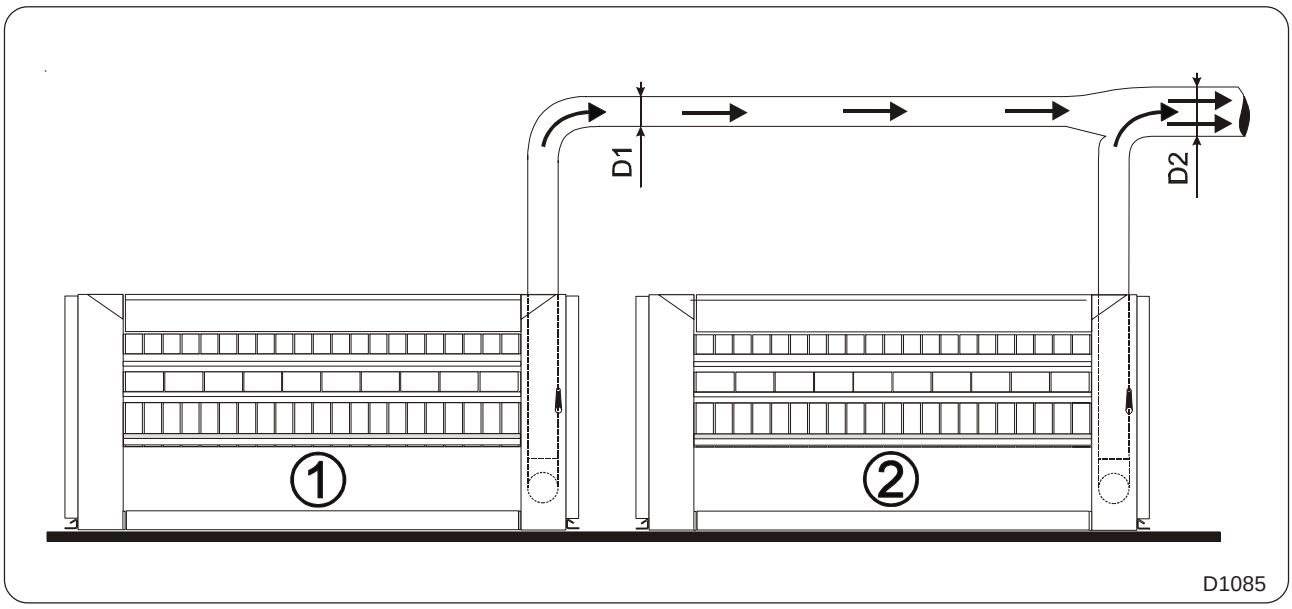
If several dryer ironers are installed with a common evacuation duct, the cross-section of the evacuation duct must increase as a function of the number of installed machines so that each of them operates at the same value of air resistance.

Use elbows (and not Tees) to allow the air to pass forwards.

The simplified figure below shows the principle on which the evacuation duct shape is designed.



Number of ironers	**D1**	**D2**	**D3**	**D4**
Outlet diameter of the exhaust pipe in (mm)	160	225	315	450
Ventilation aperture required section	2 dm²	4 dm²	8 dm²	16 dm²



The indicated evacuation diameter is the dryer outlet diameter.

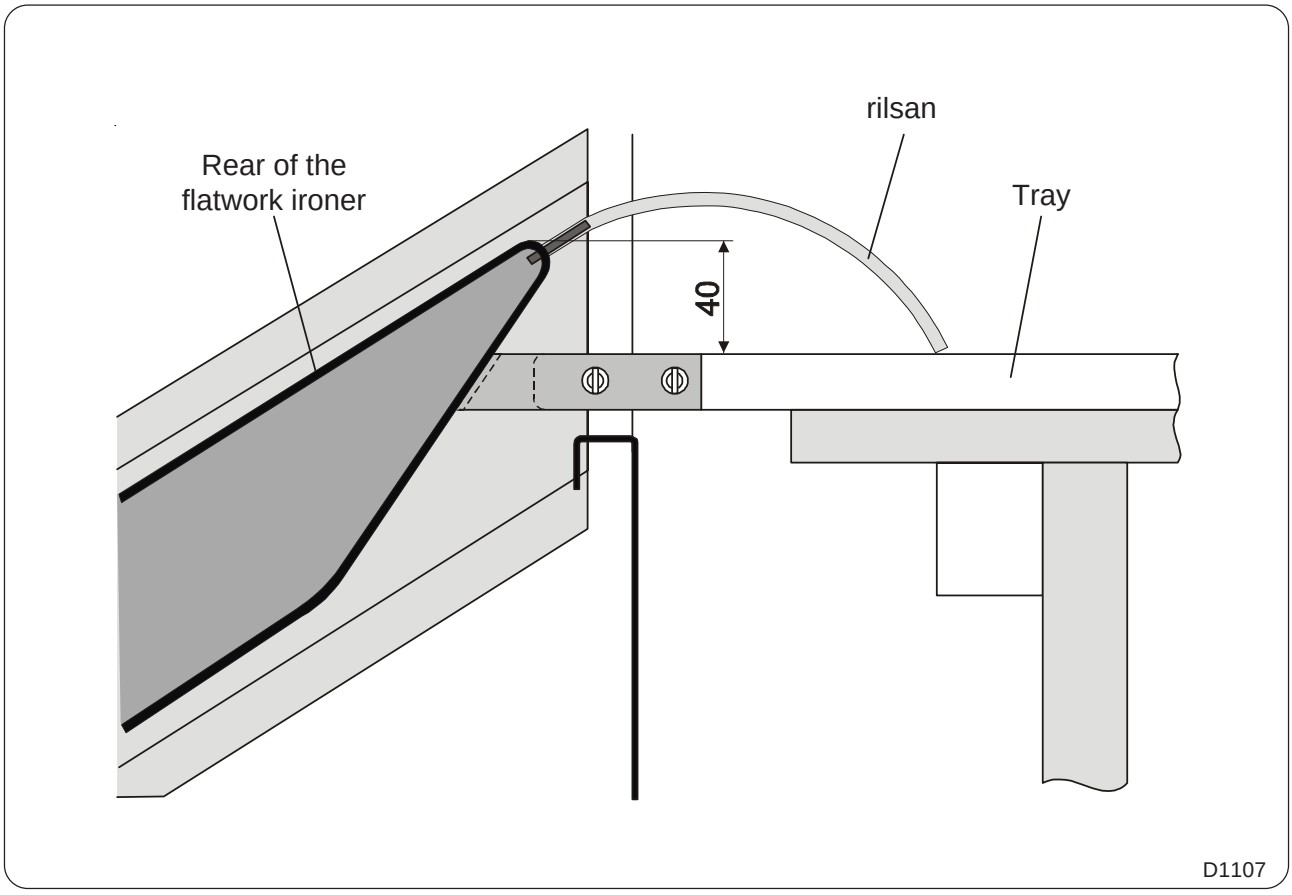
Cross-sections of ducts between dryers and the outside of the building must be designed taking account of the flow and the allowable pressure loss on each machine and the routing of ducts (elbows and lengths).

Please call us if you are in any doubt about the layout of your exhaust device if you are modifying an existing installation.

Installation of the receiving tray at the rear of the flatwork ironer

Assemble the rilsan tubes (supplied in the plastic bag) on the pins of the ends of the rear exit.

Adjust and position the table until it rests against the rear delivery and adjust the feet to reach the required dimension (see hereunder drawing)



Operating inspection

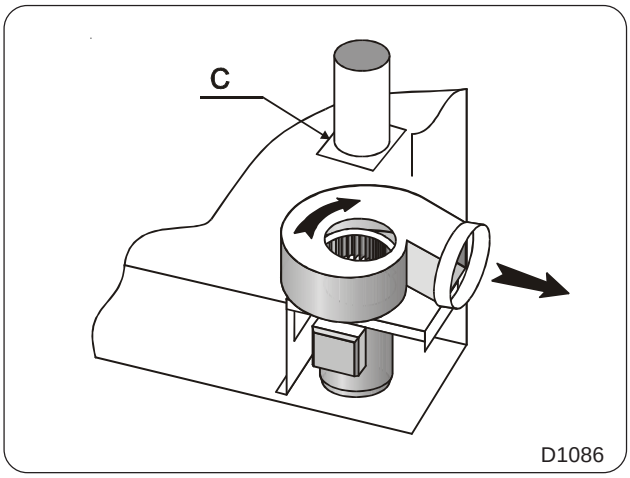
The operating inspection must be done by an approved technician.

WARNING

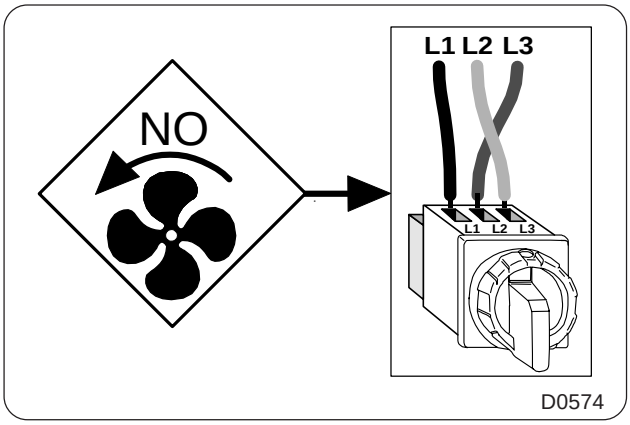
Always make sure that the fan is rotating in the right direction. The fan must rotate in the direction shown on the arrow glued inside the right compartment (see illustration).

Ironer without longitudinal folding

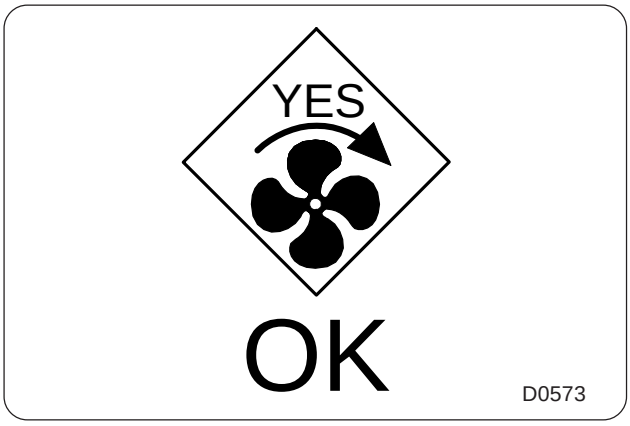
Start by installing the collar **"C"**, and then remove the hose so that you can see the direction of rotation of the fan.



If it is rotating in the wrong direction, invert two of the three phases on the power supply isolating switch to reverse the direction of rotation of the fan.



Check again the direction of the rotation of the fan then replace the hose and its collar.



Ironer with longitudinal folding

WARNING

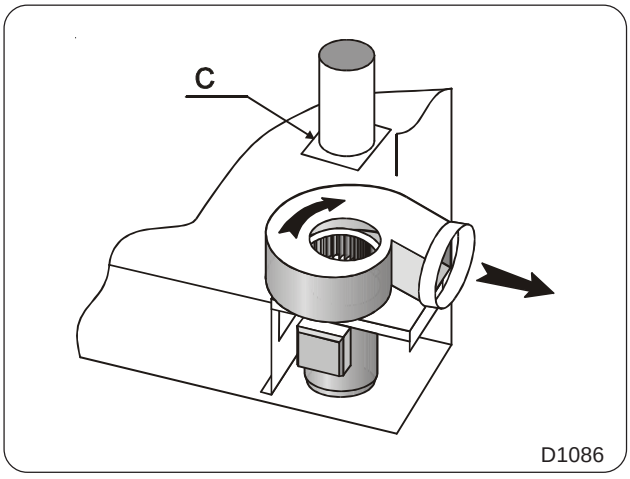
The control geared unit for longitudinal folding has a keyed transmission shaft and it is important that the direction of rotation is correct, otherwise there is a danger that certain mechanical parts might suffer damage.

The verification of direction of rotation of the fan allows to eliminate this risk.

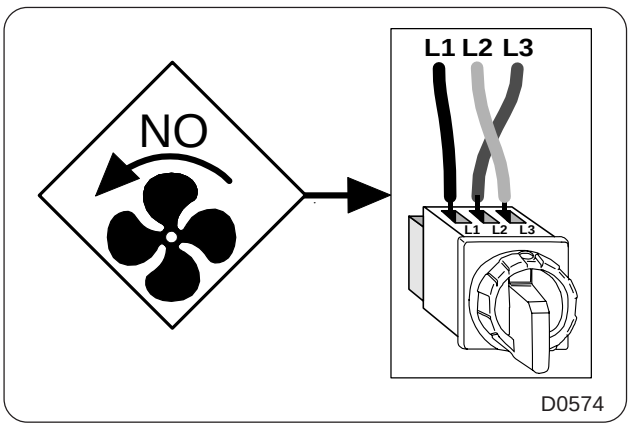
WARNING

So as to avoid any operator errors, the 4-point connector feeding the geared unit is deliberately disconnected from the interconnection circuit. They should only be reconnected after carrying out the checks described on the following pages.

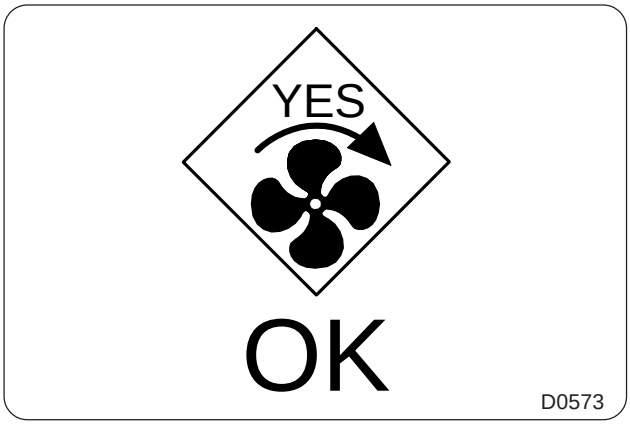
Start by installing the collar **"C"**, and then remove the hose so that you can see the direction of rotation of the fan.



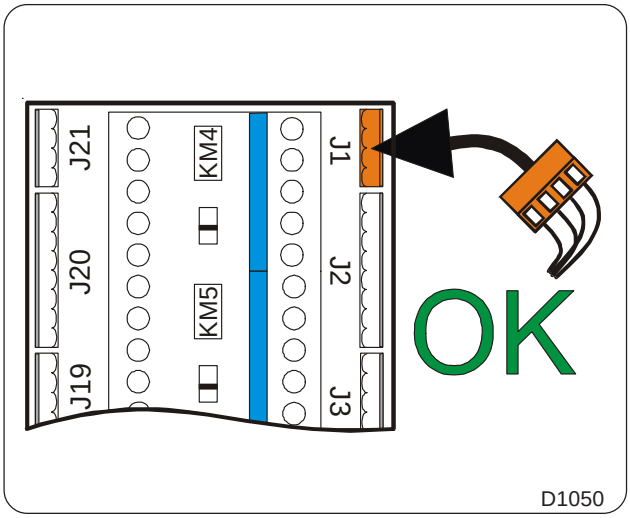
If it is rotating in the wrong direction, invert two of the three phases on the power supply isolating switch to reverse the direction of rotation of the fan.



Check again the direction of the rotation of the fan then replace the hose and its collar.



You can now reconnect the 4-point geared unit control connector.



Allow the machine to run with the heating on for 5 minutes, and check on the temperature display to ensure that the heating is working correctly.

If the tests carried out on the various points mentioned above are satisfactory, the dryer ironer is ready for use.

This technical form pressure concerns a constitued totality of :

- a cylinder classified in category of risk IV (sheet G6.4.2 from CODAP 2000),
- pipings (DN20) responding to the article 3 point 3 of DESP.

Manufacturer :

Electrolux Laundry Systems France SNC
52, rue Pasteur
BP6
10430 Rosières-Près-Troyes

Technical data of the cylinder :

Maximum service pressure :	1000 kPa (10 bar)
Running temperature mini / maxi :	15°C / 183°C
Volume of the equipment under pressure :	see following table
Pressure of test :	1700 kPa (17 bar) à 20°C
Pressof releasing of the device security :	1000 kPa (10 bar)
Anticipated usage :	steam heating

Flatwork ironer	**5019**	**5021**	**5025**	**5028**	**5032**
volume of theequipment under pressure (in dm^3)	300	335	398	431	497

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 H_2O
1 bar = 14.504 psi

british thermal unit : 1 Btu = 1 055,06 J
1 Btu = 0.252 1 kcal

calorie :
1 cal = 4.185 5 J
1 cal = 10^{-6} th
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

horsepower :
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

kilogramme per square centimter :
1 kg/cm² = 98 066.5 Pa
1 kg/cm² = 0.980 665 bar
1 kg/cm² = 10 000 mm H_2O
1 kg/cm² = 735.557 6 mm Hg

pound : 1 lb = 453.592 37 g

meter :
1 m = 1.093 61 yd
1 m = 3.280 83 ft
1 m = 39.37 in

cubic meter :
1 m³ = 1 000 dm³
1 m³ = 35.314 7 cu ft
1 dm³ = 61.024 cu in
1 dm³ = 0.035 3 cu ft

pascal :
1 Pa = 1 N/m²
1 Pa = 0.007 500 6 mm Hg
1 Pa = 0.101 97 mm H_2O
1 Pa = 0.010 197 g/cm²
1 Pa = 0.000 145 psi
1 MPa = 10 bar

psi : 1 psi = 0.068 947 6 bar

thermie :
1 th = 1 000 kcal
1 th = 10^6 cal
1 th = 4.185 5 x 10^6 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 °C = 5/9 (t °F-32)
t °F = 1.8 t °C + 32

ELECTROLUX LAUNDRY SYSTEMS

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