

Fuel oil/gas boilers

GT 430



Installation and Service Manual

Declaration of conformity CE

The appliance complies with the standard model described in declaration of compliance **CE**. It is manufactured and distributed pursuant to the requirements of European directives.

The original of the declaration of compliance is available from the manufacturer.

**DÉCLARATION DE CONFORMITÉ CE
EG - VERKLARING VAN OVEREENSTEMMING
EC - DECLARATION OF CONFORMITY
EG - KONFORMITÄT SERKLÄRUNG**

Fabricant/Manufacturer/Hersteller/Fabrikant : DE DIETRICH THERMIQUE
Adresse/Address/Adress : 57 rue de la gare
Ville, pays Stad, Land/City, Country/Land, Ort : F-67580 MERTZWILLER

déclare ici que les produit(s) suivant(s) : GT 430
verklaart hiermede dat de toestel(len) : 8, 9, 10, 11, 12, 13, 14 éléments
this is to declare that the following product(s)
erklärt hiermit das die Produk(te)

produit (s) par : DE DIETRICH THERMIQUE
: 57, rue de la Gare
: F-67580 MERTZWILLER

répond/répondent aux directives CEE suivantes:
voldoet/voldoen aan de bepalingen van de onderstaande EEG-richtlijnen:
is/are in conformity with the following EEC-directives:
den Bestimmungen der nachfolgenden EG-Richtlinien entspricht/entsprechen:

| | | |
|----------------|-----------|---|
| CEE-Directive: | 92/42/CEE | normes appliquées, toegepaste normen: |
| EEG-Richtlijn: | 92/42/EEG | tested and examined to the following norms: |
| EEC-Directive: | 92/42/EEC | verwendete Normen: |
| EG-Richtlinie: | 92/42/EWG | EN 303.2(1999), EN 304(1993) |

| | |
|------------|----------------|
| 90/396/CEE | EN 303.3(1999) |
| 90/396/EEG | |
| 90/396/EEC | |
| 90/396/EWG | |

| | |
|-----------|--|
| 73/23/CEE | DIN EN 50165(2001) EN 50165 (1997+A1:2001) |
| 73/23/EEG | DIN EN 60335-1(2003), EN 60335-1(2002) |
| 73/23/EEC | |
| 73/23/EWG | |

| | |
|------------|--|
| 89/336/CEE | EN 55014-1(2000+A1:2001) |
| 89/336/EEG | EN 55014-2(1997+A1:2001) |
| 89/336/EEC | EN 61000-3-2(2000), |
| 89/336/EWG | EN 61000-3-3(1995+A1:2001) EN55022 classe B (1998+A1 :2000) |

| | |
|-----------|--------------------|
| 97/23/CEE | (art.3 section 3) |
| 97/23/EEG | (art. 3, lid 3) |
| 97/23/EEC | (article 3, sub 3) |
| 97/23/EWG | (Art. 3, Absatz 3) |



Mertzwiller, 24 septembre 2009


Wim HARBERS
Directeur des Opérations et de la
Recherche et Développement

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1 Introduction

1.1 Symbols and abbreviations

 **Caution danger**
Risk of injury and damage to equipment. Attention must be paid to the warnings on safety of persons and equipment.

 **Specific information**
Information must be kept in mind to maintain comfort.

 **Reference**
Refer to another manual or other pages in this instruction manual.

DHW: Domestic hot water

1.2 General

1.2.1 Manufacturer's liability

Our products are manufactured in compliance with the requirements of the various applicable European Directives. They are therefore delivered with **CE** marking and all relevant documentation.

In the interest of customers, we are continuously endeavouring to make improvements in product quality. All the specifications stated in this document are therefore subject to change without notice.

Our liability as the manufacturer may not be invoked in the following cases:

- ▶ Failure to abide by the instructions on using the appliance.
- ▶ Faulty or insufficient maintenance of the appliance.
- ▶ Failure to abide by the instructions on installing the appliance.

1.2.2 Installer's liability

The installer is responsible for the installation and initial start up of the appliance. The installer must respect the following instructions:

- ▶ Read and follow the instructions given in the manuals provided with the appliance.
- ▶ Carry out installation in compliance with the prevailing legislation and standards.
- ▶ Perform the initial start up and carry out any checks necessary.
- ▶ Explain the installation to the user.
- ▶ If a maintenance is necessary, warn the user of the obligation to check the appliance and maintain it in good working order.
- ▶ Give all the instruction manuals to the user.

1.3 User's liability

To ensure the optimum operation of your appliance, we strongly recommend that you abide by the following instructions:

- ▶ Read and follow the instructions given in the manuals provided with the appliance.
- ▶ Call on qualified professionals to carry out installation and initial start up.
- ▶ Get your installer to explain your installation to you.
- ▶ Have the required checks and services done.

- ▶ Keep the instruction manuals in good condition close to the appliance.

This appliance is not intended to be used by persons (including children) whose physical, sensory or mental capacity is impaired or persons with no experience or knowledge, unless they have the benefit, through the intermediary of a person responsible for their safety, of supervision or prior instructions regarding use of the appliance. Care should be taken to ensure that children do not play with the appliance.

1.4 Homologations

1.4.1 Certifications

CE identification no: 1312 AQ 951 (Base):

France, Germany, Austria, Belgium, Spain, Italy, Luxemburg, Poland, Portugal, Czech Republic, Slovenia, Switzerland.

CE identification no: 1312 AQ 952 (Export):

Algeria, Bulgaria, China, Finland, Greece, Ireland, Jordan, Lebanon, Morocco, Norway, Romania, Russia, Syria, Tunisia, Turkey.








1.4.2 Directive 97/23/EC

Gas and oil boilers with a maximum operating temperature of 110°C and hot water tanks with a maximum operating pressure of 10 bar pertain to article 3.3 of the directive, and therefore, cannot be CE-marked to certify compliance with the directive 97/23 EC.



The boilers and hot water tanks are designed and manufactured in accordance with the sound engineering practice, as requested in article 3.3 of the directive 97/23/EC, it is certified by compliance with the directives 90/396/EC, 92/42/EC, 2006/95/EC and 2004/108/EC.

2 Safety instructions and recommendations



2.1 Safety instructions

-  For a proper operating of the boiler, follow carefully the instructions.
-  Only qualified professionals are authorised to work on the appliance and the installation.
-  Incorrect use or unauthorised modifications to the installation or the equipment itself invalidate any right to claim.
-  Before any work, switch off the mains supply to the appliance.
-  Keep to the polarity shown on the terminals: phase (L), neutral (N) and earth .
-  Keep children away from the boiler.


2.1.1 Fire hazard

-  It is forbidden to store inflammable products and materials in the boiler room or close to the boiler, even temporarily.
-  If you smell gas, do not use a naked flame, do not smoke, do not operate electrical contacts or switches (doorbell, lights, motor, lift, etc.):
 1. Shut off the gas supply.
 2. Open the windows.
 3. Extinguish all flames.
 4. Evacuate the premises.
 5. Contact a qualified professional.
 6. Inform the gas supplier.

2.1.2 Risk of intoxication

-  Do not obstruct the air inlets in the room (even partially).
-  If you smell flue gases:
 1. Switch the appliance off.
 2. Open the windows.
 3. Evacuate the premises.
 4. Contact a qualified professional.

2.1.3 Risk of being burnt

-  Depending on the settings of the appliance:
 - The temperature of the flue gas conduits may exceed 60°C.
 - The temperature of the radiators may reach 95°C.
 - The temperature of the domestic hot water may reach 65°C.

2.1.4 Risk of damage

-  Do not stock chloride or fluoride compounds close to the appliance.
-  Install the appliance in frost-free premises.
-  Do not neglect to service the appliance: Contact a qualified professional or take out a maintenance contract for the annual servicing of the appliance.

2.2 Recommendations

- ▶ Check regularly that the installation contains water and is pressurised.
- ▶ Keep the appliance accessible at all times.
- ▶ Avoid draining the installation.
- ▶ The appliance should be on Summer or Antrifreeze mode rather than switched off to guarantee the following functions:
 - Anti blocking of pumps.
 - Antifreeze protection.
 - Protection against corrosion on domestic hot water tanks fitted with a titanium anode.

3 Technical description

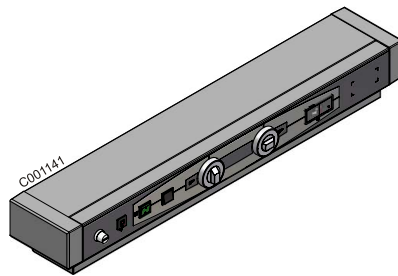
3.1 General description

The boilers of the GT 430 range are pressurised hot water boilers designed for connecting to a flue pipe which require a separate automatic fuel-oil or gas burner. GT 430 boilers have the following characteristics:

- Heating body in cast iron.
- **S3, B3, K3** or **DIEMATIC-m3** control panel.
- Production of domestic hot water can be ensured by a separate hot water calorifier.

3.2 Composition of the range

3.2.1 - S3 Standard control panel



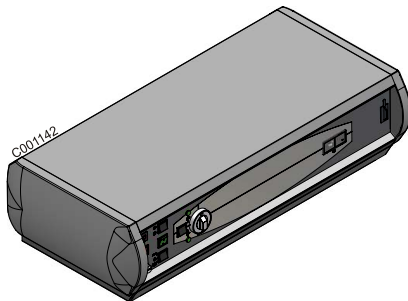
Standard panel to be fitted

Panel comprising the settings, control and safety devices allowing the boiler to operate autonomously, without regulation.

The standard panel is used to connect the boiler to the boiler room control cabinet.

This cabinet can be fitted with control units.

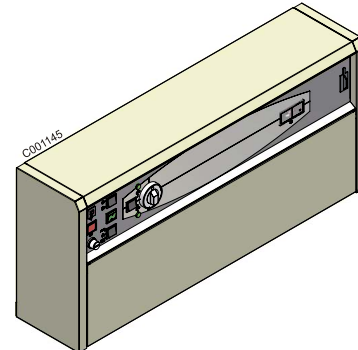
3.2.2 K3 control panel



Separate panel

Panel comprising the settings, control and safety devices allowing the boiler to operate autonomously.

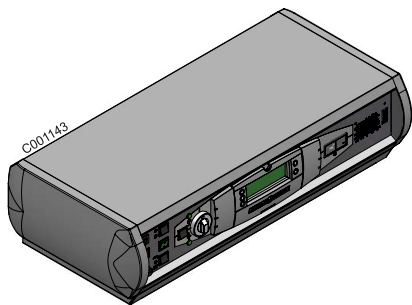
Control panel K3 also allows the boiler to be used as a secondary boiler for installations with 2 to 10 boilers in cascade, one of which is fitted with a "DIEMATIC-m3" control panel.



Side panel

i A version of the K3 control panel with lateral attachment is also available.

3.2.3 DIEMATIC-m3 control panel



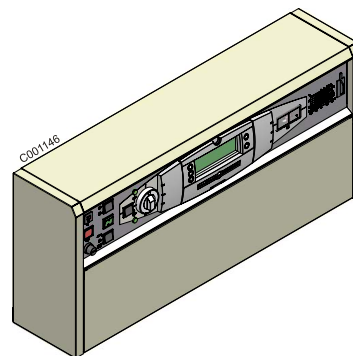
Separate panel

Top of the range electronic control panel with digital display, comprising the settings, control and safety devices allowing the boiler to operate autonomously.

The DIEMATIC-m3 panel is fitted as standard with a control unit which operates according to the outside temperature.

The DIEMATIC-m3 panel also allows the boiler to be used as a master boiler for installations with 2 to 10 boilers in cascade.

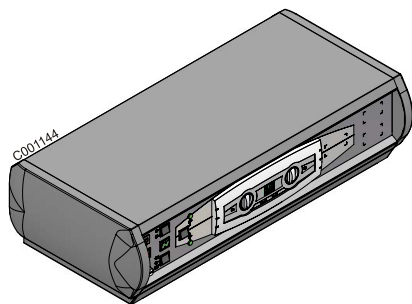
The other boilers (1 to 9) must be fitted with a "K3" control panel.



Side panel

i A version of the DIEMATIC-m3 control panel with lateral attachment is also available.

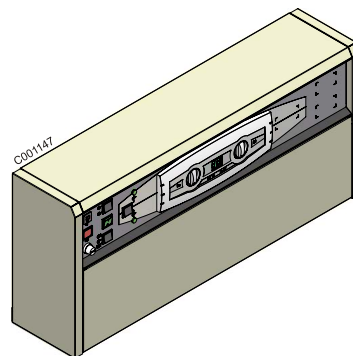
3.2.4 B3 control panel



Separate panel

Top of the range electronic control panel with digital display, comprising the settings, control and safety devices allowing the boiler to operate autonomously.

This panel makes it possible to give priority to DHW.



Side panel

i A version of the B3 control panel with lateral attachment is also available.

3.3 Technical specifications

3.3.1 Boilers for following countries: France, Belgium, Spain, Estonia, Luxemburg, Poland, Portugal, Czech Republic

Conditions of use:

Maximum operating temperature: 100 °C

Maximum operating pressure: 6 bar

Thermostat adjustable from 30 to 90°C

Safety thermostat: 110 °C


Test conditions:


CO₂ Fuel oil = 13%

CO₂ Natural gas = 9.5%

Ambient temperature: 20 °C

| Boiler | | GT 430-8 | GT 430-9 | GT 430-10 | GT 430-11 | GT 430-12 | GT 430-13 | GT 430-14 |
|---|------------------------------|----------------|----------|-----------|-----------|-----------|-----------|-----------|
| Useful output | kW | 250-310 | 310-370 | 370-430 | 430-495 | 495-570 | 570-645 | 645-700 |
| Power input | kW | 269-337 | 333-401 | 400-469 | 463-537 | 534-619 | 615-703 | 697-763 |
| Number of sections | | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Water content | l | 366 | 409 | 452 | 495 | 538 | 581 | 624 |
| Water resistance | Δ T = 10K | 19 | 32 | 51 | 69 | 94 | 126 | 156 |
| | Δ T = 15K | 9 | 15 | 23 | 31 | 42 | 56 | 70 |
| | Δ T = 20K | 5 | 8 | 13 | 17 | 24 | 32 | 39 |
| Pressure in the furnace for nozzle pressure = 0 | mbar | 0.57 | 0.73 | 0.96 | 1.2 | 1.57 | 2.0 | 2.5 |
| Smoke temperature ^{(1) (3)} | °C | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| Mass flue gas flow rate ^{(1) (2)} | Fuel oil | 516 | 615 | 716 | 823 | 947 | 1071 | 1163 |
| | Gas | 568 | 677 | 789 | 906 | 1043 | 1180 | 1280 |
| Combustion chamber | Diameter, combustion chamber | 530 | 530 | 530 | 530 | 530 | 530 | 530 |
| | Width, combustion chamber | 638 | 638 | 638 | 638 | 638 | 638 | 638 |
| | Depth, combustion chamber | 1183 | 1343 | 1503 | 1663 | 1823 | 1983 | 2143 |
| | Volume | m ³ | 0.310 | 0.354 | 0.396 | 0.439 | 0.481 | 0.523 |
| Stand-by losses ⁽⁴⁾ | Δ T = 50K | 580 | 600 | 640 | 740 | 780 | 870 | 870 |
| Net weight | kg | 1802 | 2072 | 2238 | 2454 | 2638 | 2880 | 3057 |

 In order for the boiler to operate correctly, it is imperative to respect the draught at the nozzle.

 1 mbar = 10 mmWG = 10 daPa

- (1) Nominal operation (top boiler power).
- (2) CO₂ = 13% on fuel oil and 9.5% on natural gas.
- (3) Boiler temperature: 80 °C.
Ambient temperature: 20 °C.
- (4) Stand-by losses in accordance with prevailing standard (EN 303/304).

3.3.2 Boilers for following countries: Germany, Austria, Serbia, Slovenia

Conditions of use:

Maximum operating temperature: 100 °C

Maximum operating pressure: 6 bar

Thermostat adjustable from 30 to 90°C

Safety thermostat: 110 °C

Test conditions:

CO₂ Fuel oil = 13%

CO₂ Natural gas = 9.5%

Ambient temperature: 20 °C

| Boiler | | GT 430-8 | GT 430-9 | GT 410-10 | GT 430-11 | GT 430-12 | GT 430-13 | GT 430-14 | |
|---|------------------------------|----------------|----------|-----------|-----------|-----------|-----------|-----------|-------|
| Useful output | kW | 220-265 | 265-315 | 315-365 | 365-425 | 425-485 | 485-550 | 550-615 | |
| Power input | kW | 238-288 | 286-342 | 339-395 | 392-459 | 457-527 | 522-595 | 591-663 | |
| Number of sections | | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| Water content | l | 366 | 409 | 452 | 495 | 538 | 581 | 624 | |
| Water resistance | Δ T = 10K | mbar | 14 | 24 | 37 | 51 | 68 | 92 | 121 |
| | Δ T = 20K | | 4 | 6 | 9 | 13 | 17 | 23 | 30 |
| Pressure in the furnace for nozzle pressure = 0 | mbar | 0.4 | 0.55 | 0.68 | 0.9 | 1.1 | 1.5 | 1.8 | |
| Smoke temperature ⁽¹⁾ ⁽³⁾ | °C | 180 | 180 | 180 | 180 | 180 | 180 | 180 | |
| Mass flue gas flow rate ⁽¹⁾ ⁽²⁾ | Fuel oil | Kg/h | 450 | 530 | 610 | 710 | 810 | 910 | 1020 |
| | Gas | | 470 | 555 | 640 | 745 | 850 | 955 | 1070 |
| Combustion chamber | Diameter, combustion chamber | mm | 530 | 530 | 530 | 530 | 530 | 530 | |
| | Width, combustion chamber | mm | 638 | 638 | 638 | 638 | 638 | 638 | |
| | Depth, combustion chamber | mm | 1183 | 1343 | 1503 | 1663 | 1823 | 1983 | 2143 |
| | Volume | m ³ | 0.310 | 0.354 | 0.396 | 0.439 | 0.481 | 0.523 | 0.565 |
| Maintenance consumption* ⁽³⁾ | Δ T = 50K | % | 0.17 | 0.15 | 0.14 | 0.12 | 0.11 | 0.11 | 0.10 |
| Net weight | kg | 1802 | 2072 | 2238 | 2454 | 2638 | 2880 | 3057 | |

*Maintenance consumption: total heat emission when the burner is off as a percentage of the nominal input power when the difference between the mean boiler temperature and the room temperature is 50K.

i 1 mbar = 10 mmWG = 10 daPa

⚠ In order for the boiler to operate correctly, it is imperative to respect the draught at the nozzle.

- (1) Nominal operation (top boiler power).
- (2) CO₂ = 13% on fuel oil and 9.5% on natural gas.
- (3) Ambient temperature: 20 °C.

3.3.3 Boilers for following countries: Switzerland

Conditions of use:

Maximum operating temperature: 100 °C

Maximum operating pressure: 6 bar

Thermostat adjustable from 30 to 90°C

Safety thermostat: 110 °C

Test conditions:

CO₂ Fuel oil = 13%

CO₂ Natural gas = 9.5%

Ambient temperature: 20 °C

| Boiler | | GT 430-8 | GT 430-9 | GT 410-10 | GT 430-11 | GT 430-12 | GT 430-13 | GT 430-14 | |
|--|------------------------------|----------------|----------|-----------|-----------|-----------|-----------|-----------|-------|
| Useful output | kW | 180-224 | 212-264 | 252-312 | 305-400 | 365-470 | 425-530 | 475-580 | |
| Power input | kW | 194-242 | 227-285 | 271-337 | 327-431 | 391-507 | 455-572 | 508-625 | |
| Number of sections | | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| Water content | l | 366 | 409 | 452 | 495 | 538 | 581 | 624 | |
| Water resistance ⁽¹⁾ | Δ T = 10K | mbar | 10 | 17 | 27 | 45 | 64 | 85 | 107 |
| | Δ T = 15K | | 5 | 8 | 12 | 20 | 28 | 38 | 48 |
| | Δ T = 20K | | 3 | 4 | 7 | 12 | 16 | 21 | 27 |
| Pressure in the furnace for nozzle pressure = 0 ⁽¹⁾ | mbar | 0.3 | 0.45 | 0.6 | 0.8 | 1.1 | 1.3 | 1.5 | |
| Smoke temperature ^{(1) (3)} | °C | 160 | 160 | 160 | 170 | 170 | 170 | 170 | |
| Mass flue gas flow rate ^{(1) (2) (4)} | Fuel oil | Kg/h | 373 | 439 | 520 | 665 | 781 | 880 | 963 |
| | Gas | | 410 | 483 | 572 | 732 | 860 | 969 | 1061 |
| Combustion chamber | Diameter, combustion chamber | mm | 530 | 530 | 530 | 530 | 530 | 530 | |
| | Width, combustion chamber | mm | 638 | 638 | 638 | 638 | 638 | 638 | |
| | Depth, combustion chamber | mm | 1183 | 1343 | 1503 | 1663 | 1823 | 1983 | 2143 |
| | Volume | m ³ | 0.310 | 0.354 | 0.396 | 0.439 | 0.481 | 0.523 | 0.565 |
| Maintenance consumption* | Δ T = 50K | % | 0.2 | 0.17 | 0.16 | 0.12 | 0.11 | 0.11 | 0.10 |
| Net weight | kg | 1802 | 2072 | 2238 | 2454 | 2638 | 2880 | 3057 | |

*Maintenance consumption: total heat emission when the burner is off as a percentage of the nominal input power when the difference between the mean boiler temperature and the room temperature is 50K.

i 1 mbar = 10 mmWG = 10 daPa

⚠ In order for the boiler to operate correctly, it is imperative to respect the draught at the nozzle.

- (1) Nominal operation (top boiler power).
- (2) CO₂ = 13% on fuel oil and 9% on natural gas.
- (3) Ambient temperature: 20 °C.
- (4) in accordance with DIN 4705 Teil 1.

3.3.4 Boilers for following countries: Russia

Conditions of use:

Maximum operating temperature: 100 °C

Maximum operating pressure: 6 bar

Thermostat adjustable from 30 to 90°C

Safety thermostat: 110 °C

Test conditions:

CO₂ Fuel oil = 13%

CO₂ Natural gas = 9.5%

Ambient temperature: 20 °C

| Boiler | | GT 430-8 | GT 430-9 | GT 410-10 | GT 430-11 | GT 430-12 | GT 430-13 | GT 430-14 |
|--|------------------------------|----------------|----------|-----------|-----------|-----------|-----------|-----------|
| Useful output | kW | 300-357 | 357-419 | 419-481 | 481-543 | 543-605 | 605-667 | 667-729 |
| Power input | kW | 329-394 | 392-462 | 460-530 | 526-597 | 595-666 | 659-731 | 727-798 |
| Number of sections | | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Water content | l | 366 | 409 | 452 | 495 | 538 | 581 | 624 |
| Water resistance ⁽¹⁾ | Δ T = 10K | mbar | 25 | 42 | 63 | 83 | 106 | 135 |
| | Δ T = 15K | | 11 | 18 | 28 | 37 | 47 | 60 |
| | Δ T = 20K | | 6 | 10 | 16 | 21 | 26 | 34 |
| Pressure in the furnace for nozzle pressure = 0 ⁽¹⁾ | mbar | 0.92 | 1.30 | 1.59 | 2.05 | 2.04 | 2.15 | 3.06 |
| Smoke temperature - Ambient temperature ^{(1) (3)} | K | <190 | <190 | <190 | <190 | <190 | <190 | <190 |
| Mass flue gas flow rate ^{(1) (2)} | Fuel oil | Kg/h | 600 | 710 | 810 | 910 | 1020 | 1120 |
| | Gas | | 630 | 740 | 850 | 960 | 1070 | 1170 |
| Combustion chamber | Diameter, combustion chamber | mm | 530 | 530 | 530 | 530 | 530 | 530 |
| | Width, combustion chamber | mm | 638 | 638 | 638 | 638 | 638 | 638 |
| | Depth, combustion chamber | mm | 1183 | 1343 | 1503 | 1663 | 1823 | 1983 |
| | Volume | m ³ | 0.310 | 0.354 | 0.396 | 0.439 | 0.481 | 0.523 |
| Stand-by losses ⁽³⁾ | Δ T = 50K | W | 315 | 358 | 413 | 451 | 494 | 505 |
| Net weight | kg | 1802 | 2072 | 2238 | 2454 | 2638 | 2880 | 3057 |

i 1 mbar = 10 mmWG = 10 daPa

! In order for the boiler to operate correctly, it is imperative to respect the draught at the nozzle.

- (1) Nominal operation (top boiler power).
- (2) CO₂ = 13% on fuel oil and 9.5% on natural gas.
- (3) Ambient temperature: 20 °C.

3.3.5 Boilers for following countries: Algeria, Bulgaria, China, Cyprus, Denmark, Finland, Greece, Morocco, Norway, Romania, Sweden, Tunisia

Conditions of use:

Maximum operating temperature: 100 °C
 Maximum operating pressure: 6 bar
 Thermostat adjustable from 30 to 90°C
 Safety thermostat: 110 °C

Test conditions:

CO₂ Fuel oil = 13%
 CO₂ Natural gas = 9.5%
 Ambient temperature: 20 °C

| Boiler | | GT 430-8 | GT 430-9 | GT 410-10 | GT 430-11 | GT 430-12 | GT 430-13 | GT 430-14 |
|--|------------------------------|----------------|----------|-----------|-----------|-----------|-----------|-----------|
| Useful output | kW | 300-390 | 390-450 | 450-540 | 540-600 | 600-670 | 670-720 | 720-780 |
| Power input | kW | 329-434 | 429-502 | 495-599 | 594-670 | 661-751 | 737-804 | 789-871 |
| Number of sections | | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Water content | l | 366 | 409 | 452 | 495 | 538 | 581 | 624 |
| Water resistance ⁽¹⁾ | Δ T = 10K | 31 | 48 | 80 | 101 | 130 | 158 | 194 |
| | Δ T = 15K | 14 | 21 | 36 | 45 | 58 | 70 | 87 |
| | Δ T = 20K | 8 | 12 | 20 | 25 | 33 | 40 | 49 |
| Pressure in the furnace for nozzle pressure = 0 ⁽¹⁾ | mbar | 1.1 | 1.5 | 2.0 | 2.5 | 2.5 | 2.5 | 3.5 |
| Smoke temperature ^{(1) (3)} | °C | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| Mass flue gas flow rate ^{(1) (2)} | Fuel oil | 650 | 750 | 900 | 1000 | 1116 | 1200 | 1450 |
| | Gas | 700 | 810 | 972 | 1080 | 1207 | 1297 | 1405 |
| Combustion chamber | Diameter, combustion chamber | mm | 530 | 530 | 530 | 530 | 530 | 530 |
| | Width, combustion chamber | mm | 638 | 638 | 638 | 638 | 638 | 638 |
| | Depth, combustion chamber | mm | 1183 | 1343 | 1503 | 1663 | 1823 | 1983 |
| | Volume | m ³ | 0.310 | 0.354 | 0.396 | 0.439 | 0.481 | 0.523 |
| Stand-by losses ⁽³⁾ | Δ T = 50K | W | 315 | 358 | 413 | 451 | 494 | 555 |
| Net weight | kg | 1802 | 2072 | 2238 | 2454 | 2638 | 2880 | 3057 |

i 1 mbar = 10 mmWG = 10 daPa

! In order for the boiler to operate correctly, it is imperative to respect the draught at the nozzle.

- (1) Nominal operation (top boiler power).
- (2) CO₂ = 13% on fuel oil and 9.5% on natural gas.
- (3) Ambient temperature: 20 °C.

4 Installation

4.1 Regulations governing installation



Installation must be carried out in accordance with the prevailing regulations, the codes of practice and the recommendations in these instructions.

4.1.1 In particular for France

Heating installations must be designed and constructed in such a way as to prevent the return of water from the heating circuit and products put into it into the drinking water network located upstream. The installation must not be in direct relation with the drinking water network (Article 16-7 of the departmental health Directive).

When these installations are fitted with a filling system connected to the drinking water network, they comprise a CB disconnecter (disconnecter for zones with non-controllable pressure differences) which satisfy the functional requirements of the NF P 43-011 standard.

■ Residential buildings

Statutory terms and conditions of installation and maintenance:

The installation and maintenance of the appliance must be carried out by a qualified professional in compliance with the statutory texts of the codes of conduct in force, particularly:

- Order of 27 April 2009 amending the Order of 2 August 1977 Technical and safety rules applicable to combustible gas and liquefied hydrocarbon installations situated inside residential buildings and their annexes.

- NF P 45-204 standards

Gas installation, (formerly DTU 61-1, gas installations: April 1982, addendum no 1: July 1984).

- Local Sanitary Regulations

For appliances connected to the electricity network:

- NF C 15-100 standards Low voltage electrical installation - Rules..

■ Establishments open to the public

Statutory terms and conditions of installation:

The installation and maintenance of the appliance must be carried out in compliance with the statutory texts and rules of the codes of conduct in force, particularly:

- Safety regulations against fire and panic in establishments open to the public:

- a. General regulations

For all appliances:

- Articles GZ - Installations operating on combustible gases and liquefied hydrocarbons.

Then, depending on use:

- Articles CH-Heating, ventilation, refrigeration, air conditioning and production of steam and domestic hot water.

- b. Instructions specific to each type of establishment open to the public (hospitals, stores, etc.).

■ Certificate of compliance (only concerns GT 430 boilers fitted with a gas burner)

In application of Article 25 of the Order of 27 April 2009 amending the Order of 2 August 1977 amended and Article 1 of the amended Order of 05/02/1999, the installer is required to draw up certificates of conformity approved by the Ministers responsible for construction and gas safety:

- Different forms (forms 1, 2 or 3) for a new gas installation

- Model 4 in particular after replacing a furnace with a new one.

4.1.2 In particular for Germany

Abide by the following standards, rules and directives when installing and commissioning the boiler:

- DIN 4705: calculation of chimney dimensions.

- DIN EN 12828 (June 2003 edition): heating systems in buildings. Planning of hot water heating installations (up to a maximum operating temperature of 105°C and a maximum output of 1 MW).

- DIN 4753: drinking and industrial water heating installations.

- DIN 1988: technical rules on drinking water installations (TRW).

- DVGW-TRGI: technical rules on gas installations, including complementary equipment.

- Working paper DVGW G 260/I: technical rules on the nature of the gas.

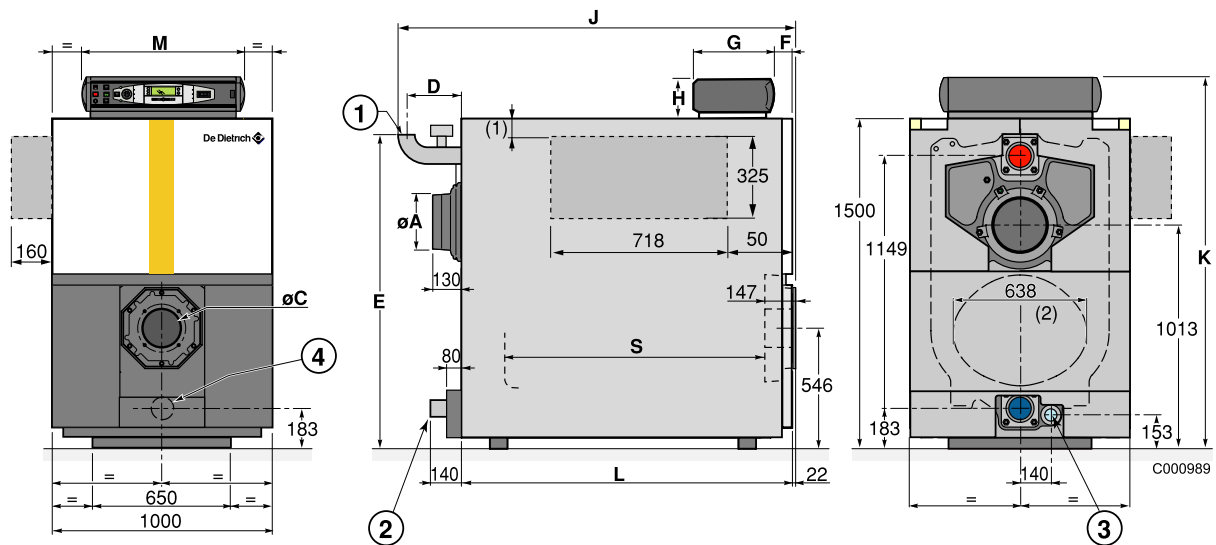
4.2 Package list



See assembly instructions.

4.3 Choice of the location

4.3.1 Main dimensions



(1) The lateral control panel can be mounted to the right or left of the boiler. Exact height positioning defined by the fitter during assembly.

(2) Inscribed diameter (in mm):

- Front section: 455
- Intermediate section: 530

Equivalent diameter (in mm): 573

Mk Tapped connection

① Heating flow - weld

② Heating return - weld

③ Rp 2" draining outlet

④ Sludge removal hole Rp 2" 1/2 - plugged

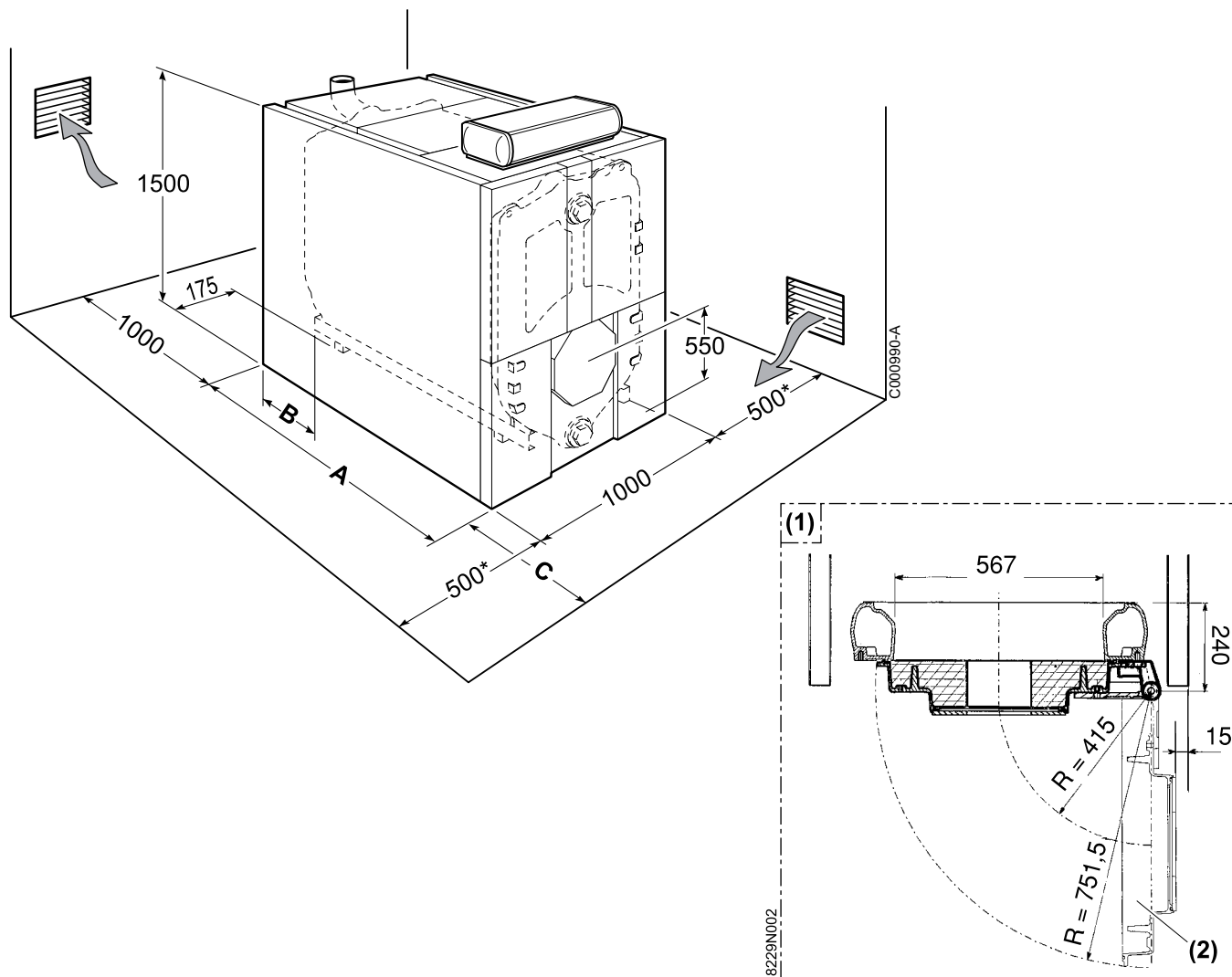
| Boiler type | | GT 430-8 | GT 430-9 | GT 410-10 | GT 430-11 | GT 430-12 | GT 430-13 | GT 430-14 |
|---------------------------------------|------------|--|----------|-----------|-----------|-----------|-----------|-----------|
| $\varnothing A$ | (exterior) | 250 | 250 | 250 | 300 | 300 | 300 | 300 |
| \varnothing ①② | | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3" | 3" | 3" | 3" |
| $\varnothing C$ | | plate intact or pre-drilled to the diameter specified on order | | | | | | |
| D | | 235 | 235 | 235 | 254 | 254 | 254 | 254 |
| E | | 1427 | 1427 | 1427 | 1447 | 1447 | 1447 | 1447 |
| J | | 1800 | 1950 | 2120 | 2305 | 2465 | 2625 | 2785 |
| L | | 1505 | 1665 | 1825 | 1985 | 2145 | 2305 | 2465 |
| S | | 1183 | 1343 | 1503 | 1663 | 1823 | 1983 | 2143 |
| Control panels B3, K3 and DIEMATIC-m3 | F | 113.5 | 113.5 | 113.5 | 113.5 | 113.5 | 113.5 | 113.5 |
| | G | 355 | 355 | 355 | 355 | 355 | 355 | 355 |
| | H | 190 | 190 | 190 | 190 | 190 | 190 | 190 |
| | K | 1690 | 1690 | 1690 | 1690 | 1690 | 1690 | 1690 |
| | M | 755 | 755 | 755 | 755 | 755 | 755 | 755 |
| Standard panel - S3 | F | 127.5 | 127.5 | 127.5 | 127.5 | 127.5 | 127.5 | 127.5 |
| | G | 130 | 130 | 130 | 130 | 130 | 130 | 130 |
| | H | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| | K | 1605 | 1605 | 1605 | 1605 | 1605 | 1605 | 1605 |
| | M | 738 | 738 | 738 | 738 | 738 | 738 | 738 |

4.3.2 Position of the boiler

For the assembly and because of their design, GT 430 boilers require no special base. Their closed furnace system means that the floor need not have refractory properties. All you have to ensure is that the floor can support the weight of the boiler when it is fitted for operation.

If the boiler location is not determined precisely, leave enough space around the boiler to facilitate monitoring and maintenance operations.

The dimensions (in mm) correspond to the minimum recommended dimensions needed to ensure adequate accessibility around the boiler.



(1) Top view

(2) Burner door

| | | GT 430-8 | GT 430-9 | GT 430-10 | GT 430-11 | GT 430-12 | GT 430-13 | GT 430-14 |
|----------|----|----------|----------|-----------|-----------|-----------|-----------|-----------|
| A | mm | 1505 | 1665 | 1825 | 1985 | 2145 | 2305 | 2465 |
| B | mm | 130 | -40 | 120 | -40 | 120 | -40 | 120 |
| C | mm | 1500 | 2000 | 2000 | 2000 | 2500 | 2500 | 2500 |


! * Pay attention to the overall volume of the burner when the door is open. To install several boilers in cascade, these dimensions should be adapted accordingly.

4.3.3 Ventilation

To allow the input of combustive air, sufficient ventilation must be provided in the boiler room, for which the cross section and emplacement must satisfy regulations in force in the country in which the boiler is installed.

Position the air inlets in relation to the high ventilation vents in order that the air is refreshed throughout the boiler room.

 **Do not obstruct the air inlets in the room (even partially).**

 **In order to avoid damage to the boiler, it is necessary to prevent the contamination of combustion air by chlorine and/or fluoride compounds, which are particularly corrosive.**

These compounds are present, for example, in aerosol sprays, paints, solvents, cleaning products, washing products, detergents, glues, snow clearing salts, etc.

Therefore:

- Do not pull in air evacuated from premises using such products: hairdressing salons, dry cleaners, industrial premises (solvents), premises containing refrigeration systems (risk of refrigerant leakage), etc.
- Do not stock such products close to the boilers.

If the boiler and/or peripheral equipment are corroded by such chloride or fluoride compounds, the contractual guarantee cannot be applied.

France

The minimum cross sections and the emplacement of the fresh air inlet and the air discharge are governed by the order of 21/03/1968 amended by the orders of 26/02/1974 and 03/03/1976.

■ Generator installed in a building for collective use (installations less than 70 kW)

- ▶ The fresh air inlet must:
 - Come out in the lower section of the premises,
 - Have a free minimum cross section calculated on the basis of 0.03 dm² per kilowatt installed output and at least equal to 2.5 dm².
- ▶ The air discharge must:
 - Be located in the upper section of the premises,
 - Rise above the roof (unless using an equivalent system which does not cause a nuisance to neighbours),
 - Have a free cross section (corresponding to 2/3 of that of the air inlet and at least equal to 2.5 dm²).

■ Generator installed in a building for individual use

- ▶ An adequate supply of fresh air must be provided as close as possible to the appliances. Its cross section must be at least 0.5 dm².
- ▶ In the upper section of the premises, an air outlet must ensure effective ventilation.

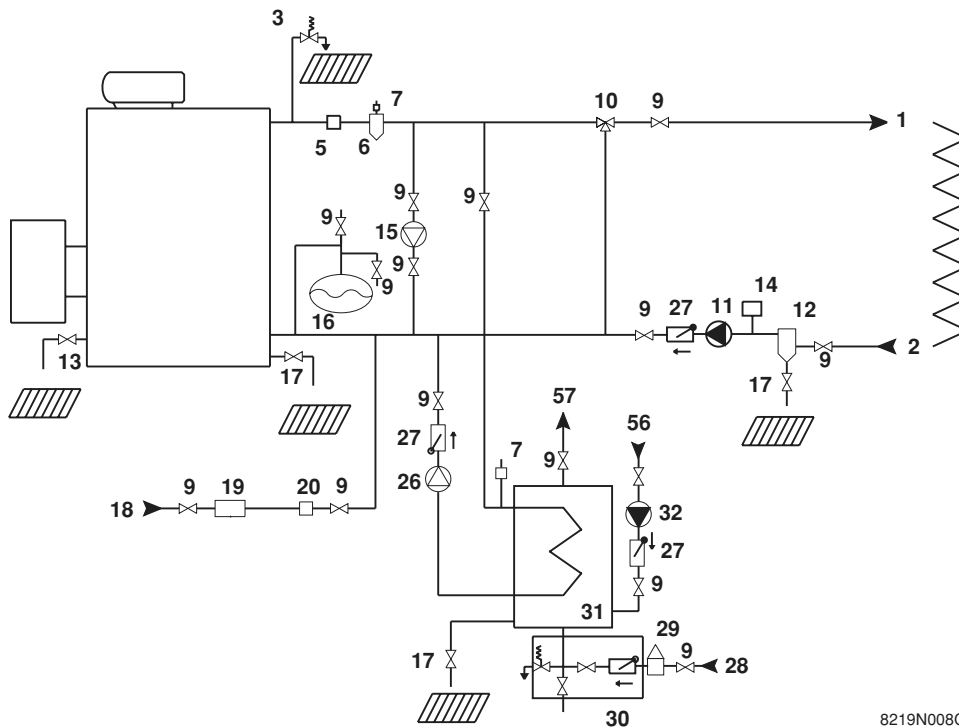
■ Establishments open to the public

- ▶ New establishment: Refer to the order of 25/06/1980 (installations of more than 20 kW and less than or equal to 70 kW).
- ▶ Existing establishment: Refer to the order of 25/06/1980 (installations less than 70 kW).

4.4 Example of an installation

The example of an installation shown below does not cover every possible configuration. Its sole aim is to draw your attention to the basic rules to be respected.

GT 430 boiler with domestic hot water production using an independent tank.



8219N008C

- | | | | |
|----|--|----|---|
| 1 | Heating flow | 17 | Drain cock |
| 2 | Heating return | 18 | Heating circuit filling (with disconnecter depending on prevailing regulations) |
| 3 | 3-bar safety valve + Pressure gauge | 19 | Water treatment |
| 5 | Flow switch | 20 | Water meter |
| 6 | Air separator | 26 | DHW load pump |
| 7 | Automatic air vent | 27 | Non-return valve |
| 9 | Isolating valve | 28 | Domestic cold water inlet |
| 10 | 3-way mixing valve | 29 | Pressure reducer (if mains pressure > 5.5 bar) |
| 11 | Boiler pump | 30 | Safety unit calibrated to 7 bar with indicator type discharge |
| 12 | Sludge decanting pot (particularly recommended on older installations) | 31 | Independent domestic hot water tanks |
| 13 | Flush valve | 32 | Domestic hot water loop pump (optional) |
| 14 | Water low safety pressure-sensitive switch | 56 | Domestic hot water circulation loop return |
| 15 | Shunt pump | 57 | Domestic hot water outlet |
| 16 | Expansion vessel | | |


4.5 Hydraulic connections

4.5.1 Flushing the system

■ Installing the boiler in new installations (installations less than 6 months old)

- ▶ Clean the installation with a universal cleaner to eliminate debris from the appliance (copper, hemp, flux).
- ▶ Thoroughly flush the installation until the water runs clear and shows no impurities.

■ Installing the boiler in existing installations

- ▶ Remove sludge from the installation.
 See: Sludge removal.
- ▶ Flush the installation.
- ▶ Clean the installation with a universal cleaner to eliminate debris from the appliance (copper, hemp, flux).
- ▶ Thoroughly flush the installation until the water runs clear and shows no impurities.

4.5.2 Sludge removal

① A tapped $\varnothing 2'' 1/2$ hole with a plug has been provided on the bottom of the front of the boiler..

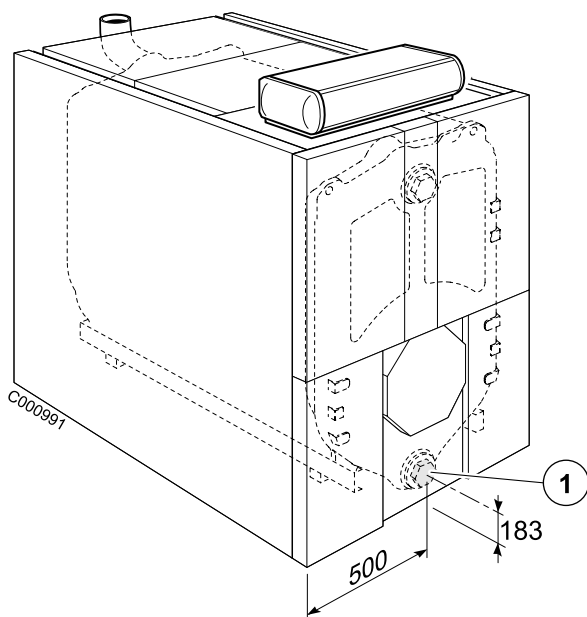
Fit a 1/4 turn valve (not supplied) on the opening to remove the sludge.

Sludge removal leads to the draining of large quantities of water, so remember to refill the system after the operation.

After this operation, go ahead and fill the installation.

 See: Remplissage de l'installation.

i never replace a boiler in an existing system without carefully rinsing the system first. Install a sludge decanting pot on the return pipe, very close to the boiler.



4.5.3 Hydraulic connection of the heating circuit

■ Water flow in the boiler

The water flow in the boiler when the burner is operating must correspond with the following formulae:

- Nominal water flow $Q_n = 0.86 P_n/20$.
- Minimum flow $Q_{min} = 0.86 P_n/45$ (this flow also corresponds with the minimum recycle flow in the boiler).
- Maximum water flow $Q_{max} = 0.86 P_n/5$.

Q_n = flow in m^3/h .

P_n = Nominal output (full boiler output) in kW.

■ Operation in cascade

After stopping the burner:

- Timeout required before the order to close a 2 way valve: 3 min.
- Switch a possible shunt pump (located between the boiler and a butterfly valve) off via the end of run contact of the butterfly valve.

■ Operation with 2-stage burner

- The water temperature in the boiler is maintained at 50°C or more; The first stage must be set to a minimum of 30% of the nominal stage.
- Operation at modulated low temperature (minimum outlet temperature: 40°C); The first stage must be set to a minimum of 50% of the nominal stage.

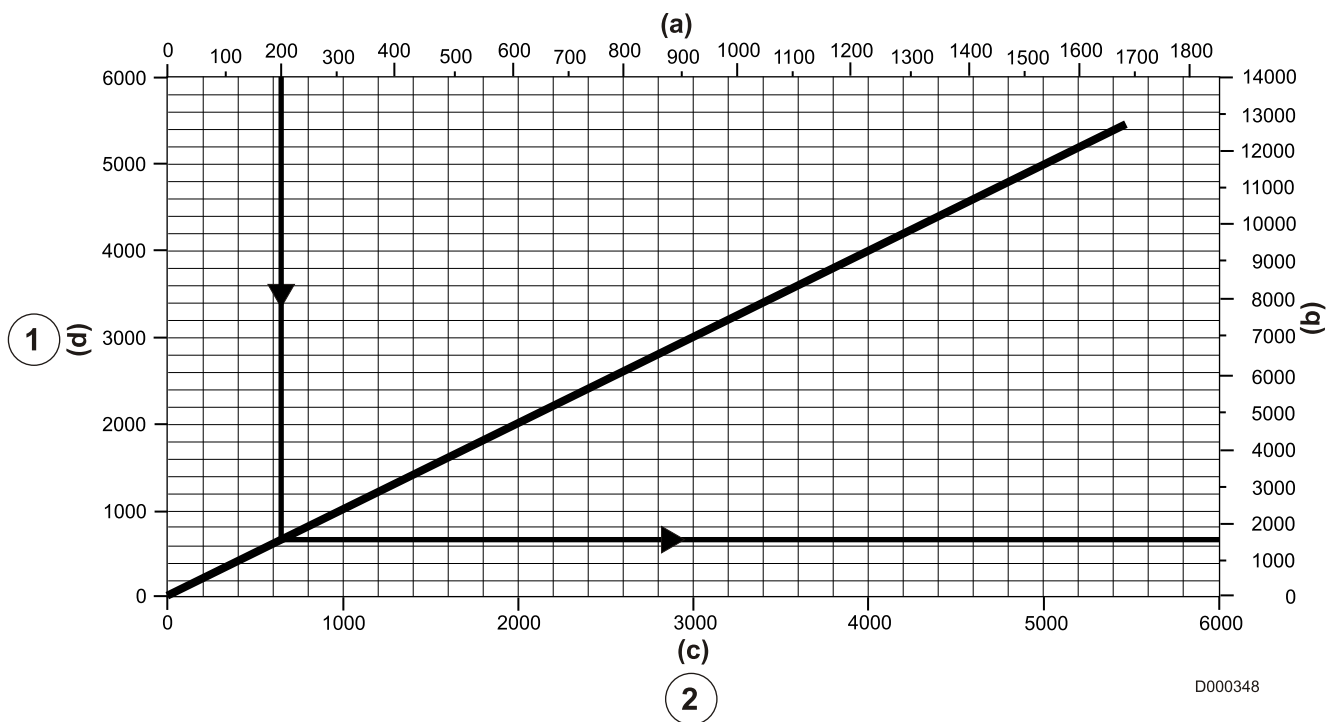
■ Operation with modulating burner

- The water temperature in the boiler is maintained at 50°C or more; The burner can modulate down to 30% of the nominal stage.
- Operation at modulated low temperature (minimum outlet temperature: 40°C); The burner can modulate down to 50% of the nominal stage.

4.5.4 Safety valve

The safety valve must be connected to the boiler outlet and no other valve or flap must be interposed between it and the boiler.

■ Minimum safety valve flowrate as a function of maximum boiler nominal output




- ① Minimum relieving capacity
 - ② Maximum gross boiler output
- Unit (a) = kW
 (b) = lb/h
 (c) = MBtu/h
 (d) = Kg/h

Example

Maximum boiler nominal output is 200 kW.

Minimum safety valve flowrate must be 700 kg/h.

4.5.5 Connection of the water circuit for domestic use

 See: Domestic hot water calorifier instructions.

4.6 Chimney connection

The high-performance features of modern boilers and their use in specific conditions as a result of the advance in burner technology (e.g. first-stage or low modulation range operation) lead to very low flue gas temperatures (160°C).

For this reason:

- Use flue gas pipes designed to enable the flow of condensates which may result from such operating modes in order to prevent damage to the chimney.
- Install a draining tee at the bottom of the chimney.

The use of a draught moderator is recommended as well.

4.6.1 Flue size

Refer to applicable regulations while determining the size of the flue.

Please note that GT 430 boilers have pressurised and tight furnaces and that the pressure at the connection to the chimney must not exceed 0 mbar, unless special sealing precautions have been taken, for instance in order to connect a static condenser/regenerator.

⚠ In order for the boiler to operate correctly, it is imperative to respect the draught at the nozzle (= 0).

4.6.2 Connection to the flue gas pipe

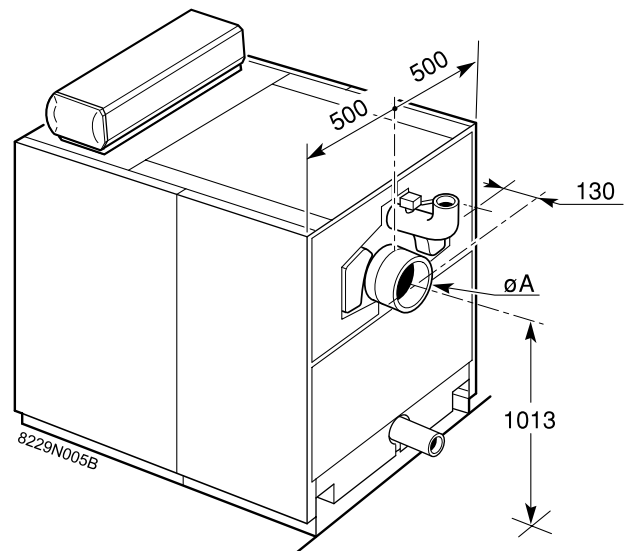
The connection shall be removable, and offer minimum load losses, i.e. it must be as short as possible with no sudden change in section.

Its diameter shall always be at least equal to that of the boiler outlet, i.e.:


A: \varnothing 250 mm: for 8 to 10 sections.

A: \varnothing 300 mm: for 11 to 14 sections.

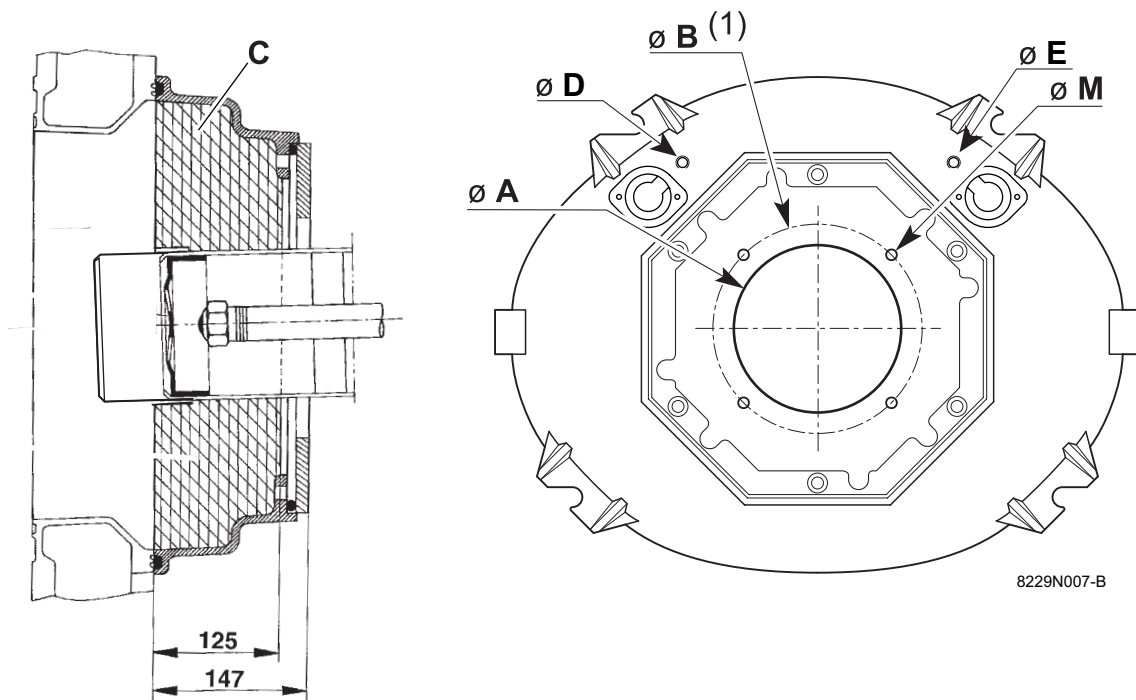
Fit a measuring point (\varnothing 10 mm hole) on the flue, in order to adjust the burner (combustion check).



4.7 Fuel-oil or gas connections

 Refer to the instructions supplied with the burner.

 The burner head deflector must be flush with the insulation of the burner door.



C: Furnace door insulation


D, E: Pressure gauge measurement socket

(1) Max attachment diameter:

- Max $\varnothing B = 290$ mm
- Max $\varnothing B = 330$ mm with 4 fastenings at 15° or 45°

| | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|
| $\varnothing A$ | 135 | 175 | 190 | 240 | 250 | 290 |
| $\varnothing B$ | 170 | 200 | 220 | 270 | 325 | 330 |
| $\varnothing D$ | 10 | 10 | 10 | 10 | 10 | 10 |
| $\varnothing E$ | 10 | 10 | 10 | 10 | 10 | 10 |
| $\varnothing M$ | 8 | 8 | 10 | 10 | 14 | 12 |


4.8 Electrical connections


 Refer to the connection instructions supplied with the control panel..

4.9 Filling the system

Filling shall be performed with a low flow rate from a low point in the boiler room in order to ensure that all the air in the boiler is bled from the high point of the system.

All the pumps must be stopped before filling (included shunt pump(s)).

 **Do not add cold water suddenly into the boiler when it is hot.**

 **VERY IMPORTANT: Instructions for starting up the boiler for the first time after the system is fully or partly drained:**
If all the air is not bled naturally to an expansion vessel which opens out onto the air, the system must include manual bleeder valves, in addition to automatic bleeder valves with the capability to bleed the system by themselves when it is operating, the manual bleeder valves are used to bleed all the high points of the system and to make sure that the filled system is free of air before the burner is turned on.


5 Commissioning

 See:

- Control panel instructions.
- Burner instructions.
- Domestic hot water calorifier instructions.


6 Switching off the boiler

- ▶ Set the On/Off switch to **O**.

 See: Control panel instructions.

- ▶ Cut the gas supply to the boiler (if present).

■ DIEMATIC-m3 control panel

 **The panel must always be supplied with 230V voltage:**

- to ensure the anti-grip of the heating pump,
- to ensure Titan Active System® operation when a titanium anode is protecting the DHW tank.

Use the mode:

- summer to shut down the heating.
- antifreeze to shut down the boiler if you are to be absent.

6.1 Precautions required in the case of long boiler stops

- The boiler and the chimney must be swept carefully.
- Close all the doors of the boiler to prevent air from circulating inside the boiler.
- We advise removing the pipe which connects the boiler to the chimney and to close off the nozzle with a cover.

6.2 Precautions required if the heating is stopped when there is a risk of freezing

We recommend the use of a correctly dosed antifreeze agent to prevent to the heating circuit from freezing.

If this cannot be done, drain the system completely.

7 Checking and maintenance

7.1 System maintenance

7.1.1 Water level

Regularly check the level of water in the system and top up if required, taking care that cold water is not added suddenly into the boiler when it is hot.

The use of an automatic filling is strongly discouraged.

This operation should be required only a few times in each heating season, with very low quantities of water; otherwise, look for the leak and repair it.

7.1.2 Draining

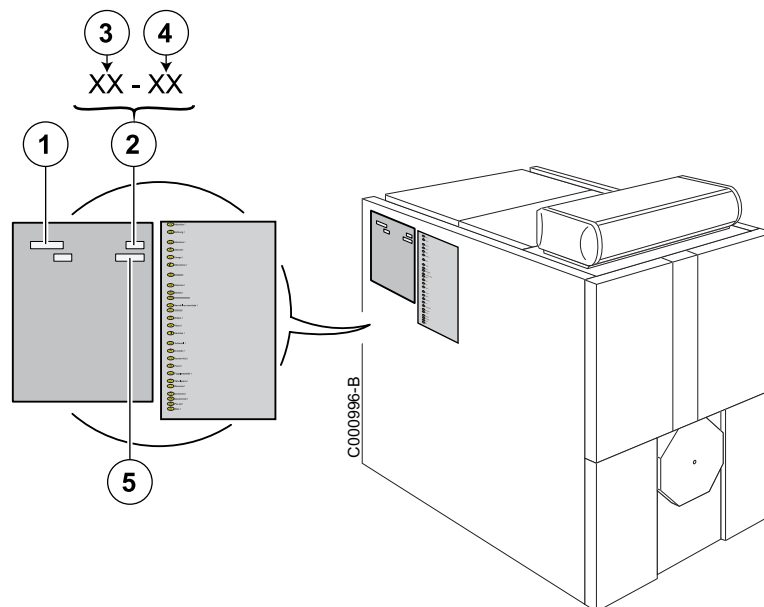
⚠ We advise you against draining the system unless it is absolutely necessary.

For example: Several months' absence with the risk of ice in the building.

7.2 Data plate

The rating plate fixed on the side of the boiler during installation is used to identify the boiler correctly and also provides the main specifications of the boiler.

- ① Boiler type
- ② Manufacturing date
- ③ Year of manufacture
- ④ Week of manufacture
- ⑤ Serial no. of the appliance



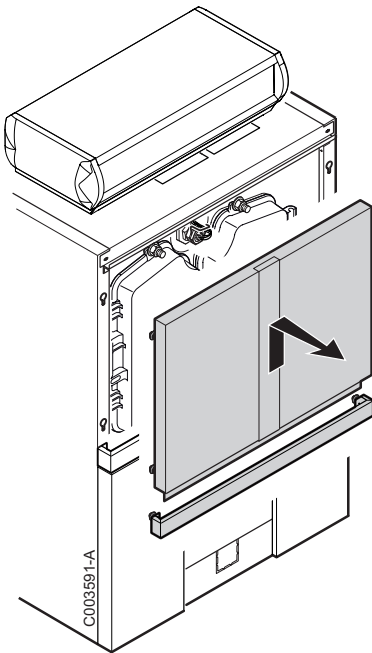
7.3 Maintenance

! The boiler will only operate efficiently if the exchange surfaces are kept clean.

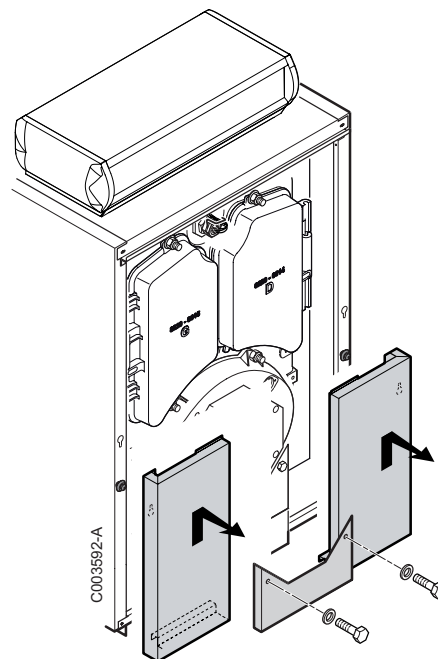
The boiler should be cleaned as soon as required and as the chimney, **at least once a year or more**, depending upon applicable regulations and specific needs.

! The operations described below shall only be performed with the boiler and power supply off.

7.3.1 Cleaning the flue gas circuit

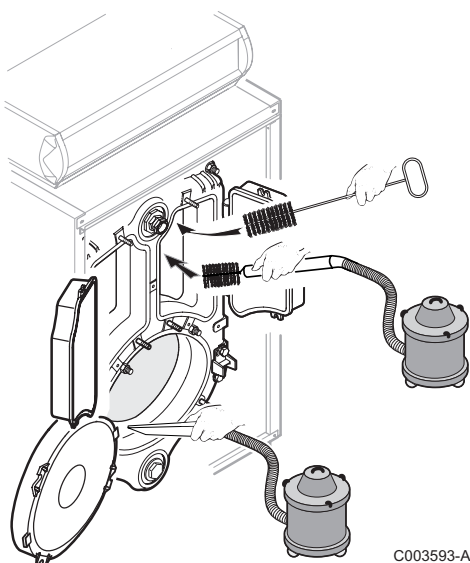


- Remove the upper front panel.
- Take off the lower panels.
- Open the sweeping doors (upper doors) by unscrewing the 3 nuts using a 19 mm spanner.
- Remove the baffle plates from the upper flue ways.



- Carefully sweep the flue ways with the brush supplied for that purpose.
- Brush the baffle plates.
- If possible, use a vacuum cleaner.
- Replace the baffle plates.
- Close the doors.

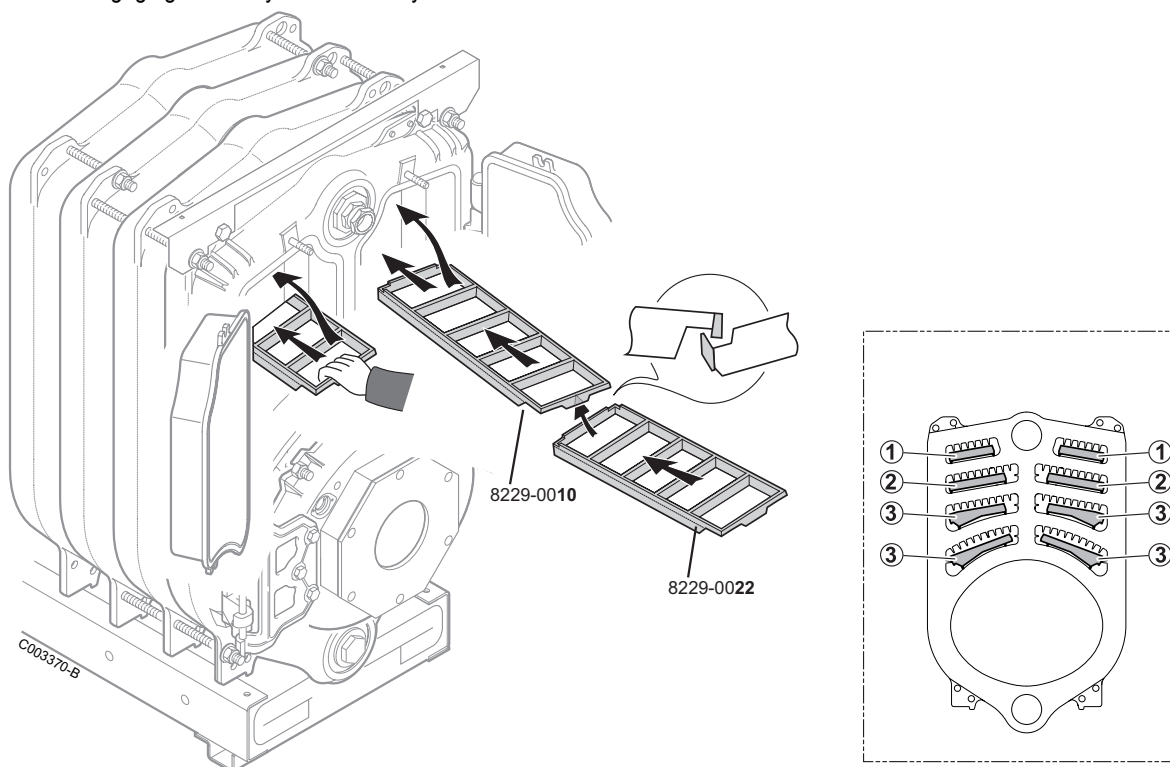
7.3.2 Cleaning the combustion chamber



- Unscrew the 4 closing nuts and open the furnace door.
- Brush out the inside of the furnace.
- Use a vacuum cleaner to remove any soot which has accumulated in the combustion chamber.
- Close the door and replace the front panel.

7.3.3 Positioning of the baffle plates

- Put the baffle plates back in place and hook them into each other before engaging them fully in the flue way.
- Close the sweeping doors.



⚠ Follow the order of assembly shown in the diagram.
The 8-figure part number of the baffle plate is cast in the metal.

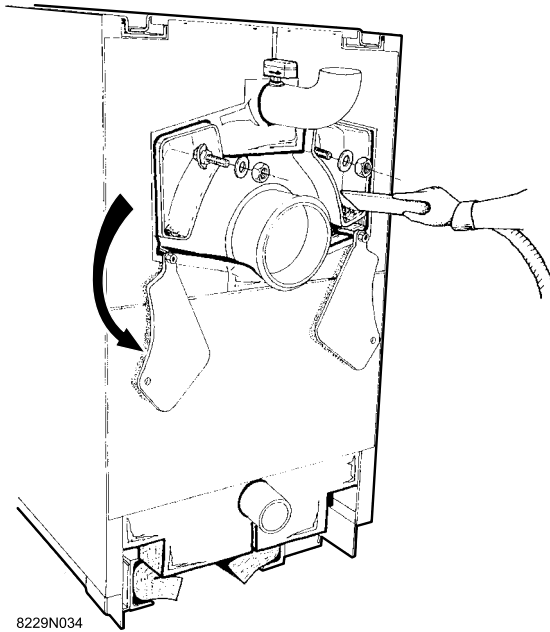
■ **Boilers for following countries: France, Germany, Austria, Belgium, Spain, Estonia, Luxemburg, Poland, Portugal, Czech Republic, Serbia, Slovenia, Switzerland**

| Boiler | | GT 430-8 | GT 430-9 - GT 430-10 | GT 430-11 - GT 430-12 | GT 430-13 - GT 430-14 |
|-------------------|---|--------------------------------|----------------------|--|-----------------------|
| Upper flue ways | ① | First 8229-0010 then 8229-0022 | 2 x 8229-0010 | First 2 x 8229-0010 then 1 x 8229-0022 | 3 x 8229-0010 |
| Central flue ways | ② | First 8229-0011 then 8229-0023 | 2 x 8229-0011 | First 2 x 8229-0011 then 1 x 8229-0023 | 3 x 8229-0011 |
| Lower flue ways | ③ | First 8229-0012 then 8229-0024 | 2 x 8229-0012 | First 2 x 8229-0012 then 1 x 8229-0024 | 3 x 8229-0012 |

■ **Boilers for following countries: Algeria, Bulgaria, China, Cyprus, Denmark, Finland, Greece, Norway, Morocco, Romania, Russia, Sweden, Tunisia**

| Boiler | | GT 430-8 | GT 430-9 - GT 430-10 | GT 430-11 | GT 430-12 | GT 430-13 - GT 430-14 |
|-------------------|---|--------------------------------|----------------------|--|--|-----------------------|
| Upper flue ways | ① | First 8229-0010 then 8229-0022 | 2 x 8229-0010 | First 2 x 8229-0010 then 1 x 8229-0022 | First 2 x 8229-0010 then 1 x 8229-0022 | 3 x 8229-0010 |
| Central flue ways | ② | First 8229-0011 then 8229-0023 | 2 x 8229-0011 | First 2 x 8229-0011 then 1 x 8229-0023 | First 2 x 8229-0011 then 1 x 8229-0023 | 3 x 8229-0011 |
| Lower flue ways | ③ | First 8229-0012 then 8229-0024 | 2 x 8229-0012 | First 2 x 8229-0012 then 1 x 8229-0024 | 2 x 8229-0012 | 2 x 8229-0012 |

7.3.4 Cleaning the flue gas box



To do so:

- Open the left and right cleaning hatches on the flue gas box (2 nuts H 12 + flat washers with a 19 mm spanner) and remove any soot which has accumulated using a vacuum cleaner.
- Replace the cleaning hatches.

7.3.5 Chemical sweeping

■ General principle

Boilers are traditionally swept mechanically. There are now chemical sweeping methods which facilitate this maintenance work.

A chemical reagent is applied to the boiler's heating surfaces.

After application, the reaction is completed by igniting the burner. The initial deposits are neutralised and pyrolysed. The remaining pulverent residues are easy to remove by sweeping or vacuum cleaning.

■ The products

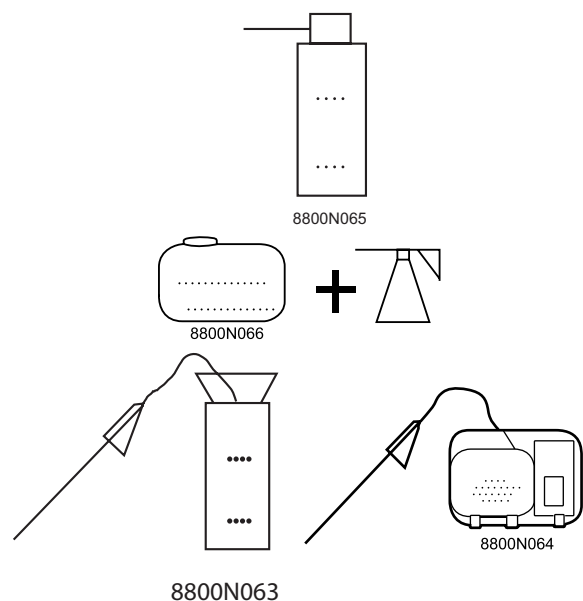
The product must be suitable for boilers with a cast iron body. Various manufacturers offer products in the form of a concentrated liquid or aerosol.

The aerosols are packaged in 0.5 to 1 l spray cans for treating domestic boilers. Refer to the instructions supplied with the product.

The liquid products are available in 1 to 50 l containers. These concentrated liquids are diluted before application with a spray.

Sprays exist in various forms suitable for their intended use:

- Low capacity (2 or 3 l) spray with built-in reservoir for small boilers and moderate frequency. Manual pressurisation of the reservoir.
- 5 l spray with separate reservoir, nozzle and connecting tube. The nozzles enable easy application at the back of the combustion chamber. Manual pressurisation of the reservoir.
- Motor-assisted pressurisation spray with reservoir, nozzle and connecting tube. These sprays are intended for intensive use.



■ Operational mode

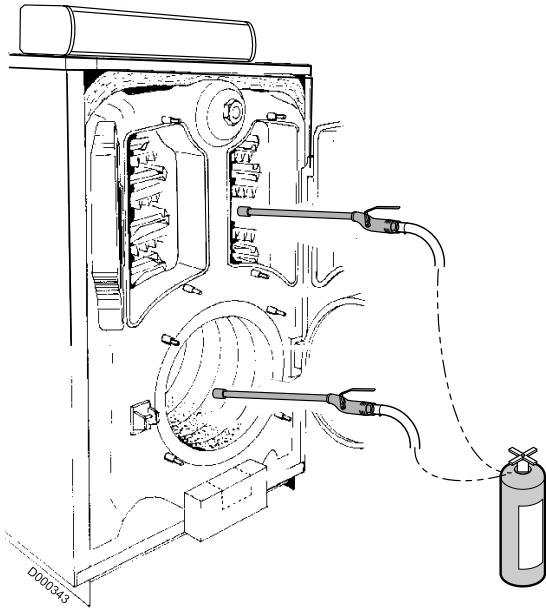
The operating mode mentioned corresponds to standard user situations. Refer to the manufacturer's instructions for specific advice on the product used.

■ Application

- Depending on the product, the boiler must be cold or heated. Refer to the instructions supplied with the product.
- Direct application to the heating surfaces with aerosol sprays.
- The concentrates are diluted in the proportions 1/5 to 1/20 (depending on the product and the condition of the boiler).
- Application with the spray is done in the upper part of the boiler and on the walls of the combustion chamber. Surfaces are dampened but not washed. It is not necessary to use the spray to get between the heating surfaces.
- A volume of one litre of solution is generally used for 1 m² of heating surface (domestic boiler), i.e. 0.05 to 0.2 l of concentrate.

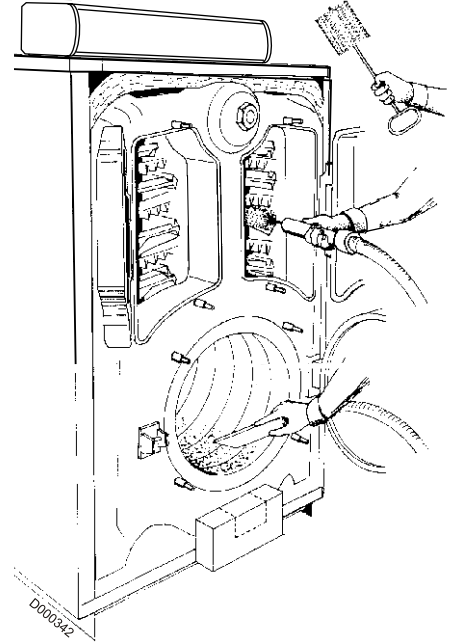
■ Ignition

The burner is ignited after allowing the product time to penetrate for 2 to 5 min. Refer to the instructions supplied with the product.



■ Cleaning


- Remove the baffle plates.
- Light sweeping will remove the pulverent residues remaining after combustion.
The remaining pulverent residues are easy to remove by sweeping or vacuum cleaning.
For certain products, brief application after cleaning has a preventive effect, limiting deposits on the heating surfaces.
- Replace the baffle plates.
- Close the door of the combustion chamber.
- Service the burner.
- Replace the front panel.



7.4 Cleaning the casing material

Use a soapy solution and a sponge only. Rinse with clean water and dry with chamois leather or a soft cloth.

7.5 Maintenance of the burner

 Refer to the instructions supplied with the burner.

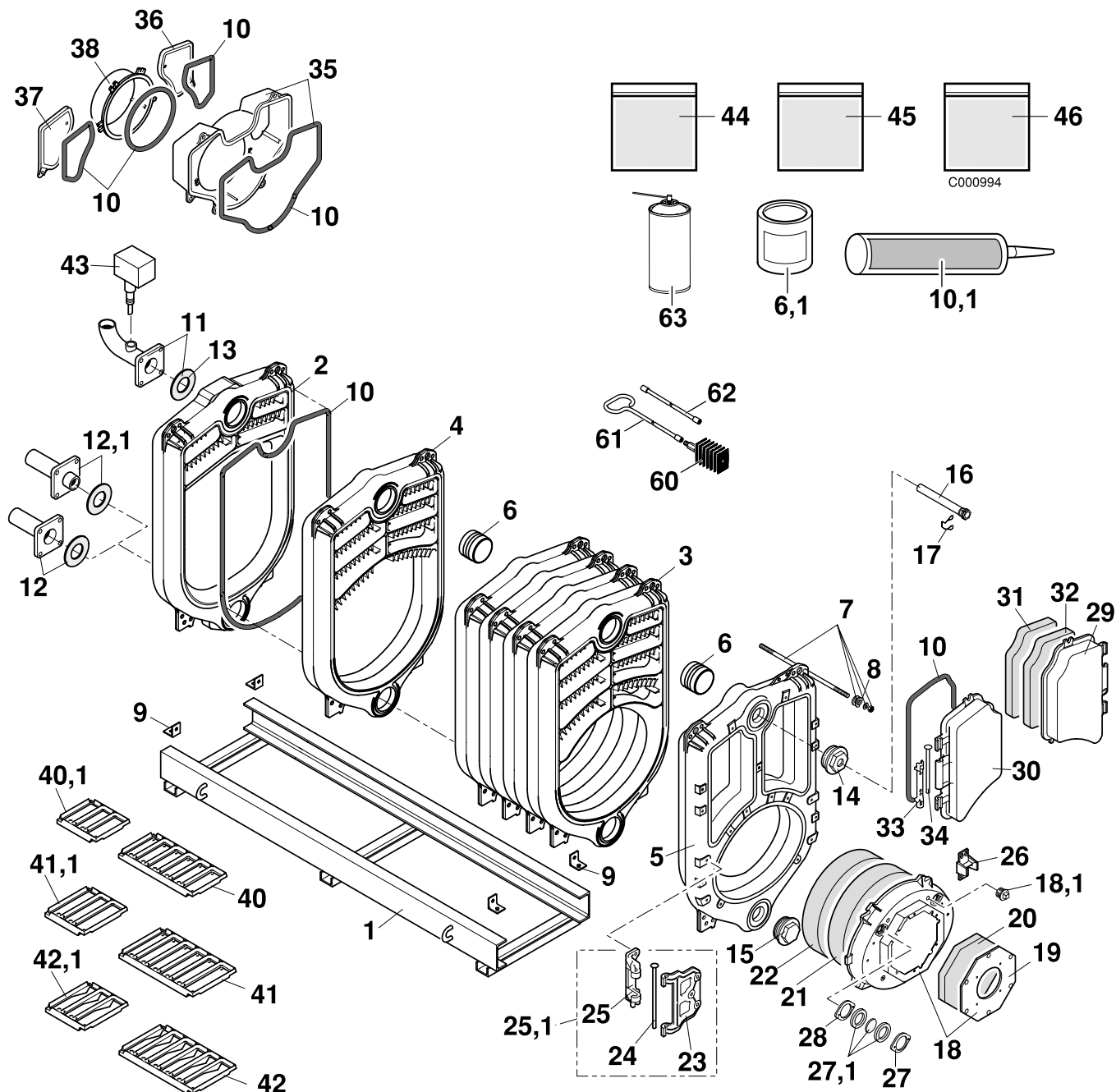
8 Spare parts - GT 430



To order a spare part, quote the reference number next to the part required.

300011893-002-B

Boiler body + Miscellaneous

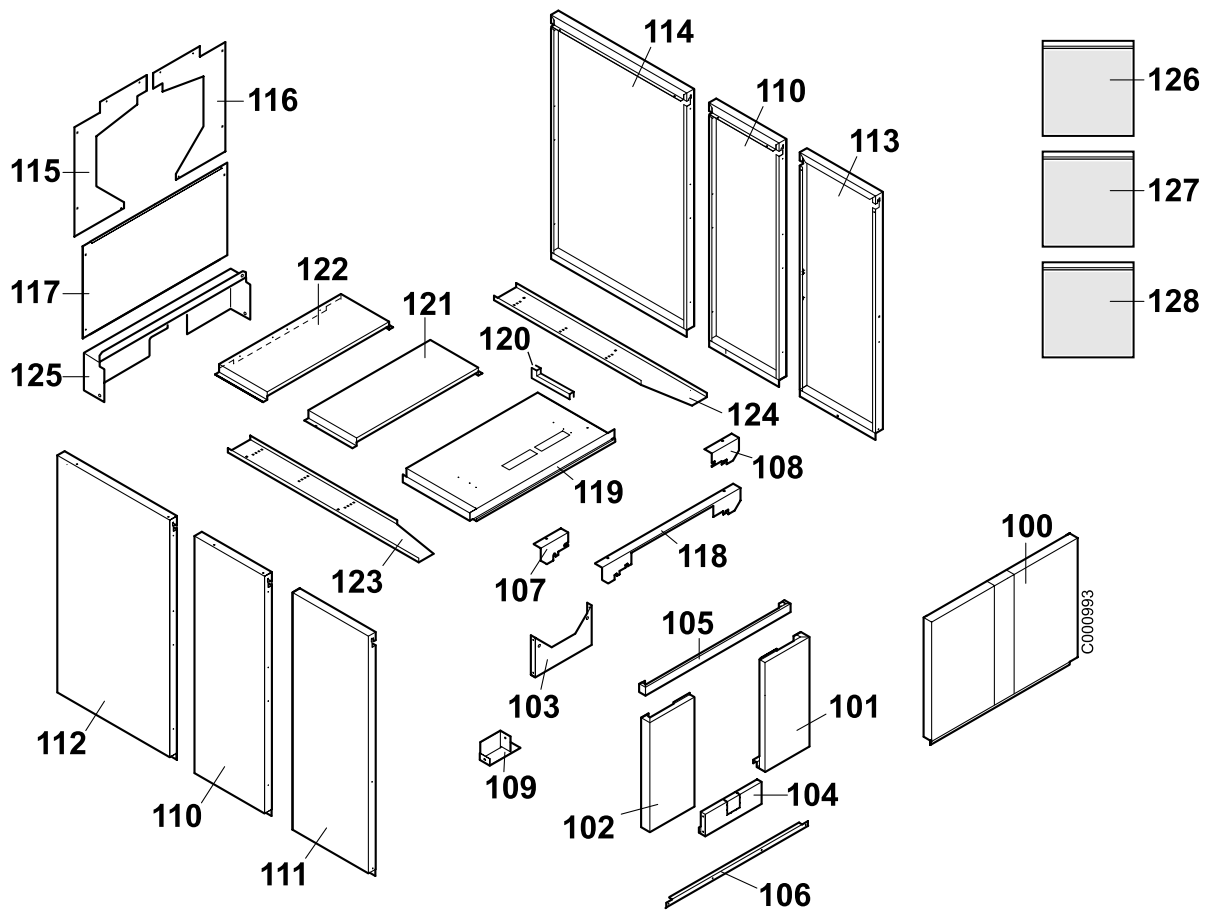


DE DIETRICH THERMIQUE S.A.S. - Spare parts centre

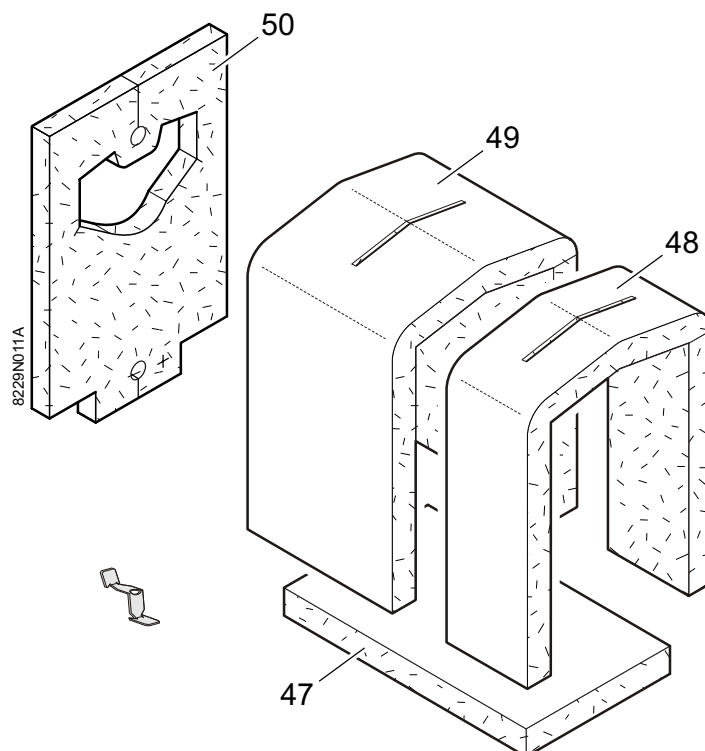
4 rue d'Oberbronn - F-67110 REICHSHOFFEN - ☎ +33 (0)3 88 80 26 50 - 📠 +33 (0)3 88 80 26 98

cpr@dedietrichthermique.com


Casing



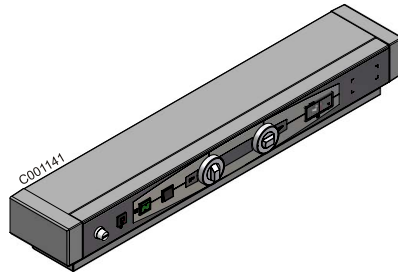
Insulating material for body



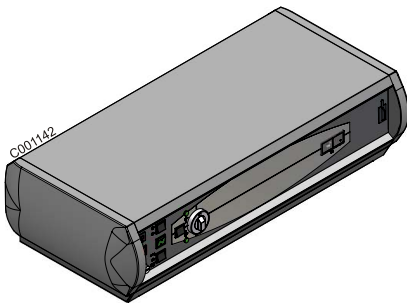
Control panels

 Refer to the Spare Parts list in the panel instructions.

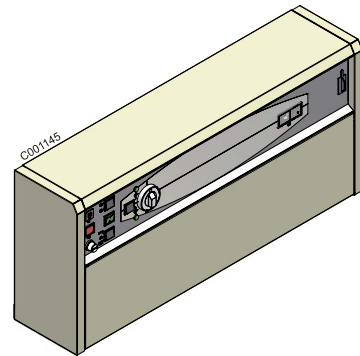
S3 control panel - Package MD4



K3 control panel



Separate panel - Package MD2

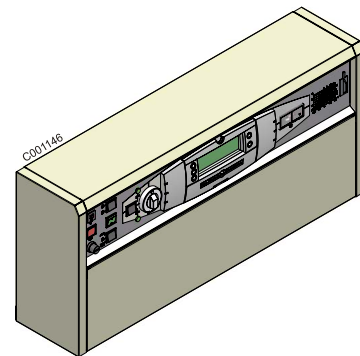


Side panel - Package MD139

DIEMATIC-m3 control panel

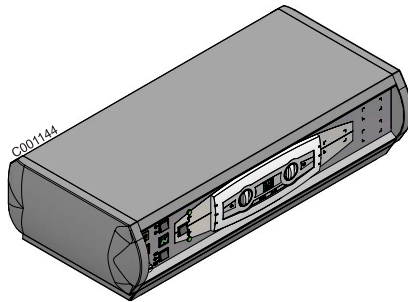


Separate panel - Package MD1

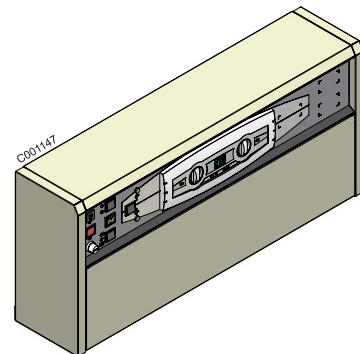


Side panel - Package MD138

B3 control panel



Separate panel - Package MD3



Side panel - Package MD140

| Markers | Code no. | Description |
|---------|-----------|--|
| | | Boiler body + Accessories |
| | | Base frame |
| 1 | 8229-8900 | Complete frame 7-8 sections |
| 1 | 8229-8901 | Complete frame 9-10 sections |
| 1 | 8229-8902 | Complete frame 11-12 sections |
| 1 | 8229-8903 | Complete frame 13-14 sections |
| 2 | 8229-8940 | Complete rear section |
| 3 | 8229-0029 | Normal intermediate section |
| 4 | 8229-0030 | Special intermediate section |
| 5 | 8229-8941 | Complete front section |
| 6 | 8005-0200 | Nipple |
| 6.1 | 9430-5027 | Nipple greasing product |
| 7 | 8229-8919 | Assembly rod 425 mm |
| 7 | 8229-8920 | Assembly rod 620 mm |
| 7 | 8229-8921 | Assembly rod 784 mm |
| 8 | 9754-0120 | Spring |
| 9 | 9752-5232 | Mounting square |
| 10 | 9508-6032 | Glass fibre cord \varnothing 10 mm (metre) |
| 10.1 | 9428-5095 | Tube of silicon mastic |
| 11 | 8229-8923 | Water flow pipe + gasket, 7 to 10 sections |
| 11 | 8229-8918 | Water flow pipe + gasket, 11 to 14 sections |
| 12 | 8104-8965 | Return collector + seal, 7 to 10 sections |
| 12.1 | 8229-8922 | Return collector + seal, 11 to 14 sections |
| 13 | 9501-4135 | Gasket 162x120x4 |
| 14 | 8202-0028 | 2" 1/2 plug with 1/2" opening |
| 15 | 8013-0028 | Solid plug 2" 1/2 |
| 16 | 8500-0027 | Sensor tube |
| 17 | 9758-1286 | Spring for sensor tube |
| 18 | 8229-8911 | Complete combustion chamber door, no opening |
| 18 | 8229-8943 | Complete 10 mm combustion chamber door with opening on request |
| 18.1 | 9495-0050 | Plug 1/4" |
| 19 | 8229-0532 | Plate for combustion chamber door, no opening |
| 19 | 8229-0546 | Plate for combustion chamber door with opening \varnothing 135 |
| 19 | 8339-0508 | Plate for combustion chamber door with opening \varnothing 175 |
| 19 | 8229-0531 | Plate for combustion chamber door with opening \varnothing 190 |
| 19 | 8229-0533 | Plate for combustion chamber door with opening \varnothing 240 |
| 19 | 8339-0509 | Plate for combustion chamber door with opening \varnothing 250 |
| 19 | 8229-0534 | Plate for combustion chamber door with opening \varnothing 290 |
| 19 | 8229-0548 | Plate for combustion chamber door with opening on request |
| 20 | 9755-0258 | Height converter, insulation |

| Markers | Code no. | Description |
|---------|-----------|---|
| 21 | 9755-0259 | Furnace door guard |
| 22 | 9755-0260 | Furnace door insulation |
| 23 | 8229-0204 | Added hinge |
| 24 | 9756-0213 | Hinge pin for combustion chamber door |
| 25 | 8229-0205 | Hinge for combustion chamber door |
| 25.1 | 8229-8944 | Hinge unit |
| 26 | 8229-0025 | Ramp |
| 27 | 9757-0027 | Inspection flange |
| 27.1 | 8015-7700 | Flame inspection window + gaskets |
| 28 | 9501-0080 | Flame inspection window gasket |
| 29 | 8229-8905 | Complete sweeping door, right |
| 30 | 8229-8906 | Complete sweeping door, left |
| 31 | 9755-0256 | Insulation, sweeping door |
| 32 | 9755-0257 | Inner protection, sweeping door |
| 33 | 8229-0202 | Hinge for sweeping door |
| 34 | 9756-0214 | Hinge pin for sweeping door |
| 35 | 8229-8907 | Complete flue gas box |
| 36 | 8229-8908 | Complete right-hand cleaning trap |
| 37 | 8229-8909 | Complete left-hand cleaning trap |
| 38 | 8229-8916 | Flue gas nozzle \varnothing 250 - 7 to 10 sections |
| 38 | 8229-8917 | Flue gas nozzle \varnothing 250 - 11 to 14 sections |
| 40 | 8229-0010 | Upper baffle plate, width 190 mm |
| 40.1 | 8229-0022 | Additional upper baffle plate, width 190 mm |
| 41 | 8229-0011 | Upper baffle plate, width 240 mm |
| 41.1 | 8229-0023 | Additional upper baffle plate, width 240 mm |
| 42 | 8229-0012 | Lower baffle plate |
| 42.1 | 8229-0024 | Additional lower baffle plate |
| | | |
| | | Flow switch (France + Germany) |
| 43 | 8802-4703 | Flow controller GT 407 |
| 43 | 8802-4707 | Flow controller GT 408 |
| 43 | 8802-4710 | Flow controller GT 409 |
| 43 | 8802-4712 | Flow controller GT 430-10 |
| 43 | 8802-4722 | Flow controller GT 430-11 |
| 43 | 8802-4725 | Flow controller GT 412 |
| 43 | 8802-4727 | Flow controller GT 413 |
| 43 | 8802-4729 | Flow controller GT 414 |
| | | |
| | | Flow switch (Switzerland) |
| 43 | 8802-4700 | Flow controller GT 407 |
| 43 | 8802-4703 | Flow controller GT 408 |
| 43 | 8802-4704 | Flow controller GT 409 |
| 43 | 8802-4707 | Flow controller GT 430-10 |
| 43 | 8802-4720 | Flow controller GT 430-11 |
| 43 | 8802-4722 | Flow controller GT 412 |

| Markers | Code no. | Description |
|---------|-----------|--|
| 43 | 8802-4724 | Flow controller GT 413 |
| 43 | 8802-4725 | Flow controller GT 414 |
| | | |
| 43 | | Flow switch (Export) |
| 43 | 8802-4711 | Flow controller GT 408 |
| 43 | 8802-4713 | Flow controller GT 409 |
| 43 | 8802-4715 | Flow controller GT 430-10 |
| 43 | 8802-4726 | Flow controller GT 430-11 |
| 43 | 8802-4728 | Flow controller GT 412 |
| 43 | 8802-4729 | Flow controller GT 413-GT 414 |
| 44 | 8229-8936 | Screws and accessories bag |
| 45 | 8229-8937 | Variable screws and accessories bag |
| 46 | 8229-5500 | Body screws packet |
| | | |
| | | Insulating material for body |
| 47 | 8229-4010 | Lower insulation, boiler body - 7 and 8 sections |
| 47 | 8229-4016 | Lower insulation, boiler body - 9 and 10 sections |
| 47 | 8229-4034 | Lower insulation, boiler body - 11 and 12 sections |
| 47 | 8229-4036 | Lower insulation, boiler body - 13 and 14 sections |
| 48 | 8229-4004 | Front boiler body insulation, width 500 mm |
| 49 | 8229-4015 | Boiler body insulation, width 520 mm |
| 49 | 8229-4018 | Insulating material for body - Length 600 mm |
| 49 | 8229-4009 | Insulating material for body - Length 800 mm |
| 49 | 8229-4012 | Insulating material for body - Length 900 mm |
| 50 | 8229-4005 | Rear insulation |
| | | |
| | | Miscellaneous |
| 60 | 9750-5025 | Brush |
| 61 | 9750-5060 | 1300 mm brush rod |
| 62 | 9750-5048 | Extension for brush rod 650 mm |
| 63 | 9434-5103 | Retouching spray paint - White |
| 63 | 9434-5102 | Retouching spray paint - anthracite grey |
| | | |
| | | Casing |
| 100 | 200007578 | Complete upper front panel |
| 101 | 8229-1001 | Complete lower front panel, right |
| 102 | 8229-1003 | Complete lower front panel, left |
| 103 | 8229-1004 | Panel for furnace door |
| 104 | 8229-1005 | Sludge removal cap |
| 105 | 8229-8834 | Complete front casing support |
| 106 | 8229-0537 | Lower front crosspiece |
| 107 | 8229-8807 | Upper casing support, left |
| 108 | 8229-8808 | Upper casing support, right |
| 109 | 8229-8010 | Lower casing support |
| 110 | 200007889 | Side panel, left or right, width 480 mm |

| Markers | Code no. | Description |
|---------|-----------|--|
| 111 | 200007422 | Complete front side panel, left |
| 112 | 200007896 | Complete side panel, left, width 770 mm |
| 112 | 200007894 | Complete side panel, left, width 610 mm |
| 112 | 200007898 | Complete side panel, left, width 930 mm |
| 113 | 200007421 | Complete front side panel, right |
| 114 | 200007893 | Complete side panel, right, width 610 mm |
| 114 | 200007895 | Complete side panel, right, width 770 mm |
| 114 | 200007897 | Complete side panel, right, width 930 mm |
| 115 | 8229-8835 | Complete upper rear panel, left |
| 116 | 8229-8836 | Complete upper rear panel, right |
| 117 | 8229-8012 | Lower back panel |
| 118 | 8229-8837 | Complete upper cross-bar |
| 119 | 8229-8809 | Complete front cover |
| 120 | 9755-0187 | Rubber profile for cable way |
| 121 | 8229-0515 | Complete intermediate cover |
| 122 | 8229-0518 | Complete rear cover, width 170 mm |
| 122 | 8229-0511 | Complete rear cover, width 330 mm |
| 122 | 8229-0514 | Complete rear cover, width 490 mm |
| 123 | 8229-8818 | Complete cable way, left, GT 407 |
| 123 | 8229-8819 | Complete cable way, left, GT 408 |
| 123 | 8229-8820 | Complete cable way, left, GT 409 |
| 123 | 8229-8821 | Complete cable way, left, GT 430-10 |
| 123 | 8229-8822 | Complete cable way, left, GT 430-11 |
| 123 | 8229-8823 | Complete cable way, left, GT 412 |
| 123 | 8229-8824 | Complete cable way, left, GT 413 |
| 123 | 8229-8825 | Complete cable way, left, GT 414 |
| 124 | 8229-8826 | Complete cable way, right, GT 407 |
| 124 | 8229-8827 | Complete cable way, right, GT 408 |
| 124 | 8229-8828 | Complete cable way, right, GT 409 |
| 124 | 8229-8829 | Complete cable way, right, GT 430-10 |
| 124 | 8229-8830 | Complete cable way, right, GT 430-11 |
| 124 | 8229-8831 | Complete cable way, right, GT 412 |
| 124 | 8229-8832 | Complete cable way, right, GT 413 |
| 124 | 8229-8833 | Complete cable way, right, GT 414 |
| 125 | 8229-5501 | Additional lower rear panel |
| 126 | 8229-8933 | Screw bag, common parts |
| 127 | 8229-8934 | Screw bag, variable parts CS11 |
| 128 | 8229-8935 | Screw bag, variable parts CS13 |

Warranty

You have just purchased one of our appliances and we thank you for the trust you have placed in our products. Please note that your appliance will provide good service for a longer period of time if it is regularly checked and maintained. Your fitter and our customer support network are at your disposal at all times.

■ Warranty terms

Starting from the purchase date shown on the original fitter's invoice, your appliance has a contractual guarantee against any manufacturing defect.

The length of the guarantee is mentioned in the price catalogue.

The manufacturer is not liable for any improper use of the appliance or failure to maintain or install the unit correctly (the user shall take care to ensure that the system is installed by a qualified fitter). In particular, the manufacturer shall not be held responsible for any damage, loss or injury caused by installations which do not comply with the following:

- applicable local laws and regulations
- specific requirements relating to the installation, such as national and/or local regulations
- the manufacturer's instructions, in particular those relating to the regular maintenance of the unit
- the rules of the profession

The warranty is limited to the exchange or repair of such parts as have been recognised to be faulty by our technical department and does not cover labour, travel and carriage costs. The warranty shall not apply to the replacement or repair of parts damaged by normal wear and tear, negligence, repairs by unqualified parties, faulty or insufficient monitoring and maintenance, faulty power supply or the use of unsuitable fuel. Sub-assemblies such as motors, pumps, electric valves etc. are guaranteed only if they have never been dismantled.

■ France

The preceding dispositions are not exclusive of benefits for the purchaser of the legal guarantee as stated in Civil Code articles 1641 to 1648.

■ Poland

Warranty conditions are included in the warranty card.

■ Switzerland

The application of the warranty is subject to the terms and conditions of sale, delivery and warranty of the company marketing our products.

■ Belgium

The preceding dispositions about the contractual guarantee are not exclusive of profit if the need arises for the purchaser in Belgium of the applicable legal dispositions on hidden defects.

■ Italy

The duration of our warranty is shown on the certificate delivered with the appliance.

Our liability as manufacturer may not be invoked in respect of incorrect use of the appliance, incorrect or insufficient maintenance thereof, or incorrect installation of the appliance (you must therefore ensure that installation and maintenance operations are carried out respectively by a qualified professional and by an after sales service company).

The legislation laid down by European Directive 99/44/EEC, transposed by Legislative Decree No. 24 of 2 February 2002 published in O.J. No. 57 of 8 March 2002, continues to apply.

■ Russia

The foregoing provisions in no way affect the rights of the consumer, which are guaranteed by the legislation of the Russian Federation as regards hidden defects.

The terms and conditions of warranty and the terms and conditions of application of the warranty are indicated on the warranty form.

The warranty shall not apply as regards the replacement or repair of wearing parts under normal use. Such parts include thermocouples, injection nozzles, flame control and ignition systems, fuses and gaskets.

■ Turkey

Due to the laws and regulations the product life for this product is 10 years. During that time the producer and/or the distributor has to provide after sales services and spare parts.

■ Other countries

The above provisions do not restrict the benefit of the legal laws regarding hidden defects applicable in the buyer's country.

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Subject to alterations.

05/03/2013



300011893-001-02

De Dietrich

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