

GT 330-GT 430-GT 530

CAST IRON FLOOR-STANDING OIL / GAS BOILERS

- GT 330: boiler from 70 to 330 kW (60,2 to 283,8 Mcal/h)
- GT 430: boiler from 300 to 780 kW (258,0 to 670,8 Mcal/h)
- GT 530: boiler from 348 to 1450 kW (299,3 to 1247,0 Mcal/h)



GT 330 DIEMATIC-m3



GT 430 B3



GT 530



Heating only
(DHW production by independent tank)



Low temperature
(except GT 530)



Oil or natural gas



See table of specifications
for the boiler concerned

GT 330, GT 430 and GT 530 boilers are pressurised, cast iron boilers with high combustion efficiency, to be fitted with an oil or gas burner.

They are all available with various control panels which can be used to control 2-stage or modulating burners:

- **standard control panel:** for installations without a control system or with a control cabinet in the boiler room
- **B3 control panel:** heating water regulation by electronic thermostat; integrated DHW priority
- **DIEMATIC-m3 control panel:** heating management by electronic control system used to control up to 3 circuits + 1 DHW circuit, depending on the options connected. Combined with a boiler with a specific K3 control panel, this can manage cascade installations of 2 to 10 boilers.

CONDITIONS OF USE

Max. working pressure: 6 bar

Max. working temperature: 90°C

Adjustable thermostat: - GT 330: from 30 to 85°C

- GT 430/530: from 40 to 85°C

Safety thermostat: 110°C

GT 330 RANGE: PRESENTATION AND SPECIFICATIONS

STRONG POINTS


The **GT 330** is a low temperature, cast iron boiler with an output of 70 to 330 kW, high combustion efficiency (up to 93%) and ★★CE classification, with a pressurised combustion chamber to be fitted with an oil or gas burner:

- Heating body in eutectic cast iron, which is highly resistant to corrosion, for low temperature operation modulated to 30°C.
- Body design with 3-path flue gas evacuation providing advantageous acoustic properties, with a large combustion

chamber to enable perfect adaptation to all types of burner, flue ways with fins including baffle plates for optimum heat exchange, available in separate sections for adaptation to boiler rooms with difficult access.

- Burner and sweeping doors mounted on reversible hinges.
- Enhanced, 100 mm thick glass wool insulation.
- Available with various control panels, all of which can be used to control 2-stage or modulating burners: see pages 8 to 12.

MODELS AVAILABLE

| Boiler | Output | | Control panel | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------------|-----------------|---------------------------|----------------------|
| | kW | Mcal/h | standard (see p 9) | B3 (see p 9) | DIEMATIC-m3 (see p 10) | K3 (1) (see p 10) |
|  <p>GT 330: for heating only, DHW production by independent tank</p> | 70-105 | 62.0-90.3 | GT 334 | GT 334 B3 | GT 334 DIEMATIC-m3 | GT 334 K3 |
| | 105-140 | 90.3-120.4 | GT 335 | GT 335 B3 | GT 335 DIEMATIC-m3 | GT 335 K3 |
| | 140-180 | 120.4-154.8 | GT 336 | GT 336 B3 | GT 336 DIEMATIC-m3 | GT 336 K3 |
| | 180-230 | 154.8-197.8 | GT 337 | GT 337 B3 | GT 337 DIEMATIC-m3 | GT 337 K3 |
| | 230-280 | 197.8-240.8 | GT 338 | GT 338 B3 | GT 338 DIEMATIC-m3 | GT 338 K3 |
| | 280-330 | 240.8-283.8 | GT 339 | GT 339 B3 | GT 339 DIEMATIC-m3 | GT 339 K3 |

(1) The GT 330 K3 operates only in combination with a GT 330 DIEMATIC-m3 as part of a cascade installation

MAIN SPECIFICATIONS

Type: Heating only
Energy used: oil / gas

Ref. "EC certificate": CE 1312BR4783
Combustion evacuation: chimney

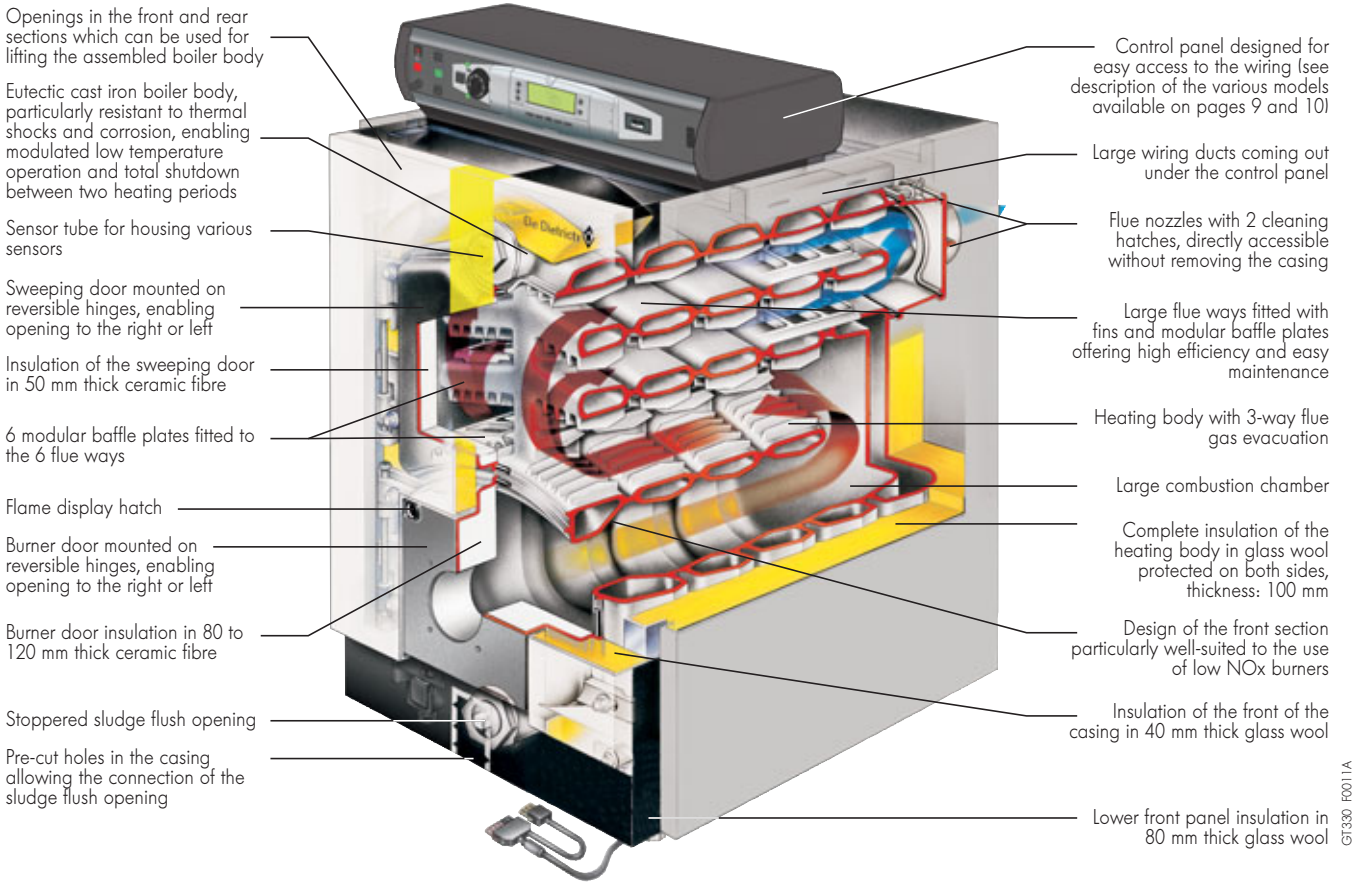
Min. return temperature: 20°C
Min. flow temperature: 30°C

| Model | GT | 334 | 335 | 336 | 337 | 338 | 339 |
|-------------------------------------------------------------------------|-------------------------|----------------|------------|-------------|-------------|-------------|-------------|
| Useful output | kW | 70-105 | 105-140 | 140-180 | 180-230 | 230-280 | 280-330 |
| | Mcal/h | 60.2-90.3 | 90.3-120.4 | 120.4-154.8 | 154.8-197.8 | 197.8-240.8 | 240.8-283.8 |
| Power input | kW | 76-117 | 115-156 | 153-199 | 197-253 | 252-309 | 305-361 |
| Water content | litres | 96 | 116 | 136 | 156 | 176 | 196 |
| Water resistance $\Delta t = 20$ K (1) | mbar | 3.5 | 6.2 | 11.5 | 16.9 | 25.0 | 36.0 |
| Combustion chamber | - inscribed \emptyset | mm | 377 | 377 | 377 | 377 | 377 |
| | - depth | mm | 613 | 718 | 854 | 993 | 1177 |
| | - volume | m ³ | 0.096 | 0.122 | 0.148 | 0.174 | 0.200 |
| Flue gas circuit volume (combustion chamber + flue ways) | m ³ | 0.163 | 0.206 | 0.249 | 0.292 | 0.335 | 0.378 |
| Flue gas mass flow rate (1) | - domestic fuel oil | kg/h | 178 | 238 | 306 | 391 | 475 |
| | - natural gas | kg/h | 187 | 250 | 321 | 410 | 499 |
| Flue gas temperature (1) | °C | < 210 | < 210 | < 210 | < 210 | < 210 | < 210 |
| Pressure in the combustion chamber for draught at the nozzle = 0 (1) | mbar | 0.3 | 0.6 | 1.1 | 1.6 | 2.2 | 2.5 |
| Number of sections | | 4 | 5 | 6 | 7 | 8 | 9 |
| Net weight (with DIEMATIC-m3 control panel) | kg | 612 | 736 | 846 | 981 | 1103 | 1230 |

(1) At nominal output, operating on domestic oil: CO₂ = 13%, operating on natural gas: CO₂ = 9.5%, draught at the nozzle = 0
In practice, 1 mbar is equivalent to a 10 mm water column or 100 Pascal. 1 K = 1°C

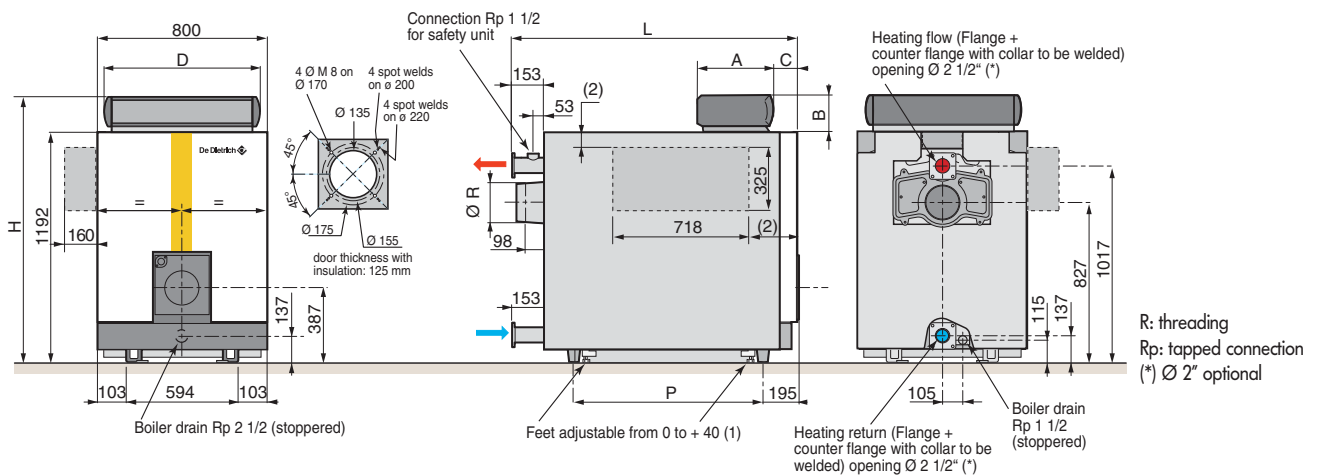
GT 330 RANGE: PRESENTATION AND SPECIFICATIONS

DESCRIPTION



Boiler shown:
GT 335 DIEMATIC-m3

MAIN DIMENSIONS (MM AND INCHES)



(1) If using the «adjustable feet», the whole boiler is lifted from 0 to 40 mm.
(2) Lateral control panel (specify when ordering): its position on one of the lateral panels is left to the installer's discretion.

| GT | 334 | 335 | 336 | 337 | 338 | 339 | Control Panel | A | B | C | D | H |
|-----|-----|------|------|------|------|------|------------------------|-----|-----|-----|-----|------|
| L | 991 | 1151 | 1311 | 1471 | 1631 | 1791 | Standard | 130 | 105 | 165 | 738 | 1297 |
| P | 490 | 650 | 810 | 970 | 1130 | 1290 | B3, K3 and DIEMATIC-m3 | 355 | 190 | 150 | 755 | 1387 |
| Ø R | 180 | 180 | 180 | 200 | 200 | 200 | | | | | | |

GT330_F0011A

GT330_F0001C

GT 430 RANGE: PRESENTATION AND SPECIFICATIONS


STRONG POINTS

The **GT 430** is a low temperature, cast iron boiler with an output of 300 to 780 kW, high combustion efficiency with a pressurised combustion chamber to be fitted with an oil or gas burner:

- Heating body in eutectic cast iron, which is highly resistant to corrosion, for low temperature operation modulated to 40°C.
- Body design with 3-path flue ways with a large combustion chamber and horizontal flue ways with fins to optimise heat exchange.
- Burner and sweeping doors mounted on hinges (reversible on burner door).

- Enhanced insulation in 100 mm thick glass wool and double insulation at the front.
- Preset flow controller supplied.
- Cable way inside the boiler.
- Available with various control panels, all of which can be used to control 2-stage or modulating burners: see pages 8 to 12.
- Suitable for new or existing boiler rooms: as the heating body is delivered in separate sections to be fitted to the base frame, it can be installed in boiler rooms with difficult access (heating body also available assembled on request).

MODELS AVAILABLE

| Boiler | Output | | Control panel | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------------|-----------------|---------------------------|----------------------|
| | kW | Mcal/h | standard (see p 9) | B3 (see p 9) | DIEMATIC-m3 (see p 10) | K3 (1) (see p 10) |
|  GT 430: for heating only, DHW production by independent tank | 300-390 | 258.0-335.4 | GT 430-8 | GT 430-8 B3 | GT 430-8DIEMATIC-m3 | GT 430-8 K3 |
| | 390-450 | 335.4-387.0 | GT 430-9 | GT 430-9 B3 | GT 430-9 DIEMATIC-m3 | GT 430-9 K3 |
| | 450-540 | 387.0-464.4 | GT 430-10 | GT 430-10B3 | GT 430-10 DIEMATIC-m3 | GT 430-10 K3 |
| | 540-600 | 464.4-516.0 | GT 430-11 | GT 430-11 B3 | GT 430-11 DIEMATIC-m3 | GT 430-11 K3 |
| | 600-670 | 516.0-576.2 | GT 430-12 | GT 430-12 B3 | GT 430-12 DIEMATIC-m3 | GT 430-12 K3 |
| | 670-720 | 576.2-619.2 | GT 430-13 | GT 430-13 B3 | GT 430-13 DIEMATIC-m3 | GT 430-13 K3 |
| | 720-780 | 619.2-670.8 | GT 430-14 | GT 430-14 B3 | GT 430-14 DIEMATIC-m3 | GT 430-14 K3 |

(1) The GT 430 K3 operates only in combination with a GT 430 DIEMATIC-m3 as part of a cascade installation.

MAIN SPECIFICATIONS

Type: Heating only
Energy used: oil / gas

Ref. "EC certificate": CE 1312AQ0952
Combustion evacuation: chimney

Min. return temperature: 20°C
Min. flow temperature: 40°C

| Model | GT | 430-8 | 430-9 | 430-10 | 430-11 | 430-12 | 430-13 | 430-14 |
|----------------------------------------------------------------------|-------------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Useful output | kW | 300-390 | 390-450 | 450-540 | 540-600 | 600-670 | 670-720 | 720-780 |
| | Mcal/h | 258.0-335.4 | 335.4-387.0 | 387.0-464.4 | 464.4-516.0 | 516.0-576.2 | 576.2-619.2 | 619.2-670.8 |
| Power input | kW | 329-434 | 429-502 | 495-599 | 594-670 | 661-751 | 737-804 | 789-871 |
| Water content | litres | 366 | 409 | 452 | 495 | 538 | 581 | 624 |
| Water resistance $\Delta t = 20$ K (1) | mbar | 8 | 12 | 20 | 25 | 33 | 40 | 49 |
| Combustion chamber | - inscribed \emptyset | mm | 530 | 530 | 530 | 530 | 530 | 530 |
| | - depth | mm | 1183 | 1343 | 1503 | 1663 | 1823 | 1983 |
| | - volume | m ³ | 0.310 | 0.354 | 0.396 | 0.439 | 0.481 | 0.523 |
| Flue gas circuit volume | m ³ | 0.563 | 0.638 | 0.712 | 0.787 | 0.860 | 0.934 | 1.008 |
| Flue gas mass flow rate (1) | - domestic fuel oil | kg/h | 650 | 750 | 900 | 1000 | 1116 | 1200 |
| | - natural gas | kg/h | 700 | 810 | 972 | 1080 | 1207 | 1297 |
| Flue gas temperature (1) | °C | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| Pressure in the combustion chamber for draught at the nozzle = 0 (1) | mbar | 1.1 | 1.5 | 2 | 2.5 | 2.5 | 2.5 | 3.5 |
| Number of sections | | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Net weight | kg | 1802 | 2072 | 2238 | 2454 | 2638 | 2880 | 3057 |

(1) At nominal output, operating on domestic oil: CO₂ = 13%, operating on natural gas: CO₂ = 9.5%, draught at the nozzle = 0
In practice, 1 mbar is equivalent to a 10 mm water column or 100 Pascal. 1 K = 1°C

GT 430 RANGE: PRESENTATION AND SPECIFICATIONS

DESCRIPTION

Eutectic cast iron boiler body, particularly resistant to thermal shocks and corrosion, enabling modulated low temperature operation and total shutdown between two heating periods

Control panel designed for easy access to the wiring (see description of the various models available on pages 9 and 10)

Sensor tube for housing various sensors

Door for sweeping the flue ways mounted on hinges (1 left door and 1 right door)

Insulation upper front casing panel, 60 mm glass wool

Insulation of the sweeping doors in 80 mm thick ceramic fibre

Flame viewports (1 to the left and 1 to the right of the combustion chamber plate)

Burner door mounted on reversible hinges, enabling opening to the right or left

Burner door insulation in ceramic fibre, thickness: 80 to 140 mm

Removable combustion chamber plate

Pre-cut holes in the casing allowing the connection of the sludge flush opening

Stopped sludge flush opening

Connection cable with plug-in connectors for 2-stage or modulating burners prefitted in compliance with the European standard

Insulation upper front casing panels, 60 mm of glass wool

Silicon seals guaranteeing that the flue gas circuit is leakproof

Modular cast iron baffle plates fitted to the 8 flue ways in the boiler

2 large cable ways directly accessible under the top panels

Preset flow rate controller

Heating flow

Flue nozzles with 2 cleaning hatches, directly accessible without removing the casing

Large flue ways fitted with fins and modular baffle plates offering high efficiency and easy maintenance

Heating body with 3-way flue gas evacuation

Large combustion chamber

Complete insulation of the heating body in glass wool protected on both sides, thickness: 100 mm

Metal frame serving as a base

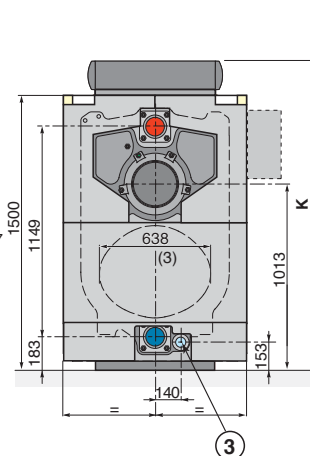
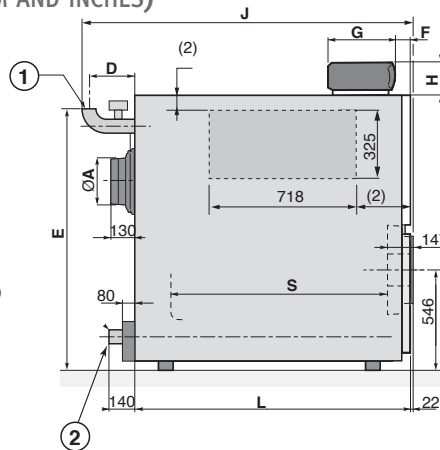
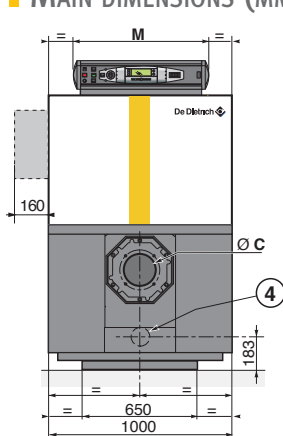
Rings on the frame which can be used for lifting the assembled heating body

Design of the front section particularly well-suited to the use of low NOx burners

Boiler shown: GT 430-8 B3

GT430_Q0007

MAIN DIMENSIONS (MM AND INCHES)



- ① Heating flow Ø B (to be welded)
- ② Heating return Ø B (to be welded)
- ③ Drainage Rp 2 (stopped)
- ④ Flush opening Rp 2 1/2 (stopped)

- (2) Lateral control panel (specify when ordering): its position on one of the lateral panels is left to the installer's discretion
- (3) inscribed Ø of the combustion chamber: front section: Ø 455 mm, middle section: Ø 530 mm, Ø equivalent combustion chamber: 573 mm
- R: Threading
- Rp: Tapped connection

GT430_P0001

| GT | Ø A ext. | Ø B | Ø C | D | E | J | L | S |
|--------|----------|-------|--------------------------------------------------------------------------------|-----|------|------|------|------|
| 430-8 | 250 | 2"1/2 | whole or pre-drilled plate with Ø of 135, 175, 190, 240, 250 or 290 on request | 235 | 1427 | 1800 | 1505 | 1183 |
| 430-9 | 250 | 2"1/2 | | 235 | 1427 | 1950 | 1665 | 1343 |
| 430-10 | 250 | 2"1/2 | | 235 | 1427 | 2120 | 1825 | 1503 |
| 430-11 | 300 | 3" | | 254 | 1447 | 2305 | 1985 | 1663 |
| 430-12 | 300 | 3" | | 254 | 1447 | 2465 | 2145 | 1823 |
| 430-13 | 300 | 3" | | 254 | 1447 | 2625 | 2305 | 1983 |
| 430-14 | 300 | 3" | | 254 | 1447 | 2785 | 2465 | 2143 |

| Control Panel | F | G | H | K | M |
|------------------------|-------|-----|-----|------|-----|
| Standard | 127.5 | 130 | 105 | 1605 | 738 |
| B3, K3 and DIEMATIC-m3 | 113.5 | 355 | 190 | 1690 | 755 |


GT 530 RANGE: PRESENTATION AND SPECIFICATIONS

STRONG POINTS

- The **GT 530** is a cast iron boiler with an output of 348 to 1450 kW, high combustion efficiency and a pressurised combustion chamber to be fitted with an oil or gas burner:
- Heating body in eutectic cast iron, which is highly resistant to corrosion, for low temperature operation modulated to 40°C.
 - Front section with damp walls increasing the heat exchange surface in the combustion chamber and reducing NOx emissions.
 - 4-path combustion products circuit in parallel series for a loss of load in the flue gas circuit inferior to traditional pressurised boilers.
 - Burner door on reversible hinge, maintenance access from the front with fast opening system.

- Enhanced insulation of 100 mm to 120 mm in the upper section.
- Access way on the top central section of the boiler.
- Preset flow rate controller supplied.
- Cable ways inside the boiler.
- Available with various control panels, all of which can be used to control 2-stage or modulating burners: see pages 8 to 12.
- Suitable for new or existing boiler rooms: as the heating body is delivered in separate sections, it can be installed in boiler rooms with difficult access; heating body also available assembled on request.

MODELS AVAILABLE

| Boiler | Output | | Control panel | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------|-----------------------|-----------------|---------------------------|----------------------|
| | kW | Mcal/h | standard (see p 9) | B3 (see p 9) | DIEMATIC-m3 (see p 10) | K3 (1) (see p 10) |
|  <p>GT 530: for heating only, DHW production by independent tank</p> | 348-406 | 299.3-349.2 | GT 530-7 | GT 530-7 B3 | GT 530-7DIEMATIC-m3 | GT 530-8 K3 |
| | 406-464 | 349.2-399.0 | GT 530-8 | GT 530-8 B3 | GT 530-8DIEMATIC-m3 | GT 530-8 K3 |
| | 464-522 | 399.0-448.9 | GT 530-9 | GT 530-9 B3 | GT 530-9 DIEMATIC-m3 | GT 530-9 K3 |
| | 522-580 | 448.9-498.8 | GT 530-10 | GT 530-10B3 | GT 530-10 DIEMATIC-m3 | GT 530-10 K3 |
| | 580-638 | 498.8-548.7 | GT 530-11 | GT 530-11 B3 | GT 530-11 DIEMATIC-m3 | GT 530-11 K3 |
| | 638-696 | 548.7-598.6 | GT 530-12 | GT 530-12 B3 | GT 530-12 DIEMATIC-m3 | GT 530-12 K3 |
| | 696-754 | 598.6-648.4 | GT 530-13 | GT 530-13 B3 | GT 530-13 DIEMATIC-m3 | GT 530-13 K3 |
| | 754-812 | 648.4-698.3 | GT 530-14 | GT 530-14 B3 | GT 530-14 DIEMATIC-m3 | GT 530-14 K3 |
| | 812-870 | 698.3-748.2 | GT 530-15 | GT 530-15 B3 | GT 530-15 DIEMATIC-m3 | GT 530-15 K3 |
| | 870-928 | 748.2-798.1 | GT 530-16 | GT 530-16 B3 | GT 530-16 DIEMATIC-m3 | GT 530-16 K3 |
| | 928-986 | 798.1-848.0 | GT 530-17 | GT 530-17 B3 | GT 530-17 DIEMATIC-m3 | GT 530-17 K3 |
| | 986-1044 | 848.0-897.8 | GT 530-18 | GT 530-18 B3 | GT 530-18 DIEMATIC-m3 | GT 530-18 K3 |
| | 1044-1102 | 897.8-947.7 | GT 530-19 | GT 530-19 B3 | GT 530-19 DIEMATIC-m3 | GT 530-19 K3 |
| | 1102-1160 | 947.7-997.6 | GT 530-20 | GT 530-20 B3 | GT 530-20 DIEMATIC-m3 | GT 530-20 K3 |
| | 1160-1218 | 997.6-1047.5 | GT 530-21 | GT 530-21 B3 | GT 530-21 DIEMATIC-m3 | GT 530-21 K3 |
| | 1218-1276 | 1047.5-1097.4 | GT 530-22 | GT 530-22 B3 | GT 530-22 DIEMATIC-m3 | GT 530-22 K3 |
| | 1276-1334 | 1097.4-1147.2 | GT 530-23 | GT 530-23 B3 | GT 530-23 DIEMATIC-m3 | GT 530-23 K3 |
| | 1334-1400 | 1147.2-1204.0 | GT 530-24 | GT 530-24 B3 | GT 530-24 DIEMATIC-m3 | GT 530-24 K3 |
| | 1400-1450 | 1204.0-1247.0 | GT 530-25 | GT 530-25 B3 | GT 530-25 DIEMATIC-m3 | GT 530-25 K3 |

(1) The GT 530 K3 operates only in combination with a GT 530 DIEMATIC-m3 as part of a cascade installation.

MAIN SPECIFICATIONS

Type: Heating only
Energy used: oil / gas

Ref. "EC certificate": CE 1312AQ0954
Combustion evacuation: chimney

Min. return temperature: 20°C
Min. flow temperature: 40°C

| Model | GT530- | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
|----------------------------------------|---------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|---------------|------|
| Useful output | kW | 348-406 | 406-464 | 464-522 | 522-580 | 580-638 | 638-696 | 696-754 | 754-812 | 812-870 | 870-928 | 928-986 | 986-1044 | 1044-1102 | 1102-1160 | 1160-1218 | 1218-1276 | 1276-1334 | 1334-1400 | 1400-1450 | |
| | Mcal/h | 299.3-349.2 | 349.2-399.0 | 399.0-448.9 | 448.9-498.8 | 498.8-548.7 | 548.7-598.6 | 598.6-648.4 | 648.4-698.3 | 698.3-748.2 | 748.2-798.1 | 798.1-848.0 | 848.0-897.8 | 897.8-947.7 | 947.7-997.6 | 997.6-1047.5 | 1047.5-1097.4 | 1097.4-1147.2 | 1147.2-1204.0 | 1204.0-1247.0 | |
| Power input | kW | 380-447 | 442-508 | 505-571 | 566-632 | 635-703 | 701-769 | 763-831 | 821-890 | 897-967 | 954-1024 | 1022-1093 | 1077-1147 | 1146-1216 | 1198-1268 | 1265-1336 | 1333-1404 | 1393-1464 | 1463-1544 | 1532-1595 | |
| Water content | litres | 389 | 427 | 465 | 503 | 541 | 579 | 617 | 655 | 693 | 731 | 769 | 807 | 845 | 905 | 943 | 981 | 1019 | 1057 | 1095 | |
| Water resistance $\Delta t = 20$ K (1) | mbar | 4.5 | 5.5 | 7.1 | 8.7 | 10.5 | 12.5 | 14.4 | 16.8 | 19.4 | 22.1 | 24.9 | 27.7 | 30.6 | 33.6 | 36.6 | 39.6 | 42.6 | 45.6 | 48.6 | |
| Combustion chamber | - width 683 mm, l | mm | 706 | 817 | 928 | 1039 | 1150 | 1261 | 1372 | 1483 | 1594 | 1705 | 1816 | 1927 | 2038 | 2189 | 2300 | 2411 | 2522 | 2633 | 2744 |
| | - volume | m ³ | 0.28 | 0.32 | 0.36 | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 | 0.61 | 0.65 | 0.70 | 0.74 | 0.78 | 0.84 | 0.88 | 0.92 | 0.96 | 1.00 | 1.05 |
| Flue gas mass flow rate (1) | - domestic fuel oil | kg/h | 690 | 790 | 790 | 980 | 1080 | 1180 | 1380 | 1380 | 1480 | 1580 | 1670 | 1770 | 1870 | 1970 | 2070 | 2170 | 2260 | 2360 | 2460 |
| | - natural gas | kg/h | 720 | 830 | 930 | 1030 | 1140 | 1240 | 1340 | 1450 | 1550 | 1650 | 1760 | 1860 | 1960 | 2070 | 2170 | 2270 | 2380 | 2480 | 2580 |
| Flue gas temperature (1) | °C | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | < 190 | |
| Combustion chamber pressure (1) | mbar | 1.7 | 1.75 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.85 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | |
| Net weight | kg | 1852 | 2046 | 2237 | 2412 | 2601 | 2810 | 3000 | 3171 | 3364 | 3561 | 3756 | 3955 | 4124 | 4343 | 4538 | 4734 | 4930 | 5107 | 5297 | |

(1) At nominal stage, CO₂: 13,1 to 13,5% with oil and 9,5% with natural gas, draught at the nozzle = 0.

GT 530 RANGE: PRESENTATION AND SPECIFICATIONS

DESCRIPTION

Sensor tube for housing various sensors

Sweeping hatches for the vertical plates with "unlosable" holding screws

Control panel: description see p. 9 and 10

Sweeping hatches for the upper flue ways

Flame viewport

Burner door mounted on reversible hinge, enabling opening to the right or left

Burner door insulation in ceramic fibre

Sweeping hatches for the lower flue ways

Stopped sludge flush opening

Metal frame serving as a base fitted with rings which can be used for lifting the assembled heating body

Pre-cut holes in the casing allowing the connection to the sludge flush opening

Connection cable with plug-in connectors for 2-stage or modulating burners prefitted in compliance with the European standard

Large wiring ducts coming out under the control panel

Access way facilitating accessibility to various components in the boiler room and facilitating boiler maintenance

Removable insulation modules in glass wool protected on both sides, thickness: 120 mm

Heating flow

Preset flow rate controller

Flue gas nozzle

Upper flue ways fitted with fins and modular baffle plates

Exchange surface maximised by moulded profiles

4-path flue gas circuit in series/parallel

Heating return

Sweeping hatch for the flue gas box

Silicon seal guaranteeing that the flue gas circuit is leakproof

Complete insulation of the boiler body in glass wool protected on both sides, thickness: 100 mm

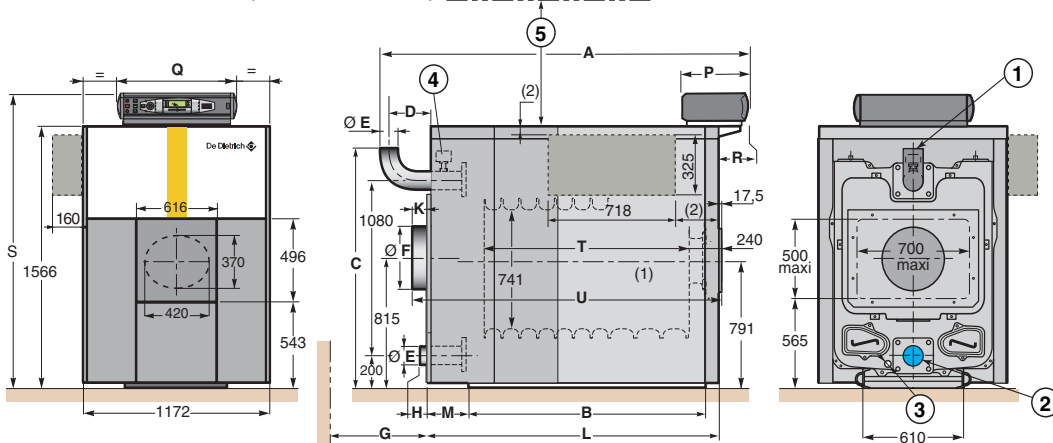
Eutectic cast iron heating body, particularly resistant to thermal shocks and corrosion, enabling modulated low temperature operation and total shutdown between two heating periods

Dampened front section (improvement of efficiency, reduction of NOx emissions)

Insulation: front casing panels in glass wool protected on both sides, thickness: 100 mm

Boiler shown: GT 530-10

MAIN DIMENSIONS (MM AND INCHES)



- (1) The burner shaft is marked with an arrow. Optional drilling of the burner door on request and without additional cost in diameters of 165, 186, 210, 240 or 290 mm.
- (2) Lateral control panel (specify when ordering): its position on one of the lateral panels is left to the installer's discretion.

- ① Heating flow Ø E (to be welded)
- ② Heating return Ø E (to be welded)
- ③ Drainage Rp 3/4
- ④ Flow rate detector
- ⑤ Min. height for maintenance = 850 mm

- * Full plate to be cut out Max. cut-out 500 x 700 mm, delivered without connection nozzle
- ** length required for clearance of the equidistribution water pipe
- *** Dimension corresponding to the extremity of the chimney connection (with nozzle, height 100 mm)

R: Threading
Rp: Tapped connection

| Control Panel | P | Q | R | S |
|------------------------|-----|-----|-----|------|
| Standard | 130 | 738 | 20 | 1670 |
| B3, K3 and DIEMATIC-m3 | 355 | 755 | 175 | 1760 |

| GT530- | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| A standard control panel | 1606 | 1717 | 1828 | 1939 | 2050 | 2161 | 2272 | 2383 | 2494 | 2605 | 2716 | 2826 | 2937 | 3124 | 3235 | 3346 | 3457 | 3568 | 3679 |
| B3, K3 and DIEMATIC-m3 control panels | 1761 | 1872 | 1983 | 2094 | 2205 | 2316 | 2427 | 2538 | 2649 | 2760 | 2871 | 3017 | 3128 | 3279 | 3390 | 3501 | 3612 | 3723 | 3834 |
| B | 967 | 1078 | 1078 | 1300 | 1300 | 1522 | 1522 | 1744 | 1744 | 1966 | 1966 | 2188 | 2188 | 2450 | 2450 | 2672 | 2672 | 2894 | 2894 |
| C | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1504 | 1504 | 1504 | 1504 | 1504 | 1504 | 1504 | 1504 |
| D | 240 | 211 | 212 | 233 | 234 | 255 | 256 | 217 | 188 | 189 | 210 | 236 | 257 | 208 | 209 | 230 | 231 | 252 | 253 |
| Ø E (to be welded) | 139.7 | 139.7 | 139.7 | 139.7 | 139.7 | 139.7 | 139.7 | 139.7 | 139.7 | 139.7 | 139.7 | 159 | 159 | 159 | 159 | 159 | 159 | 159 | 159 |
| Ø F | 300 | 300 | 300 | 350 | 350 | 350 | 350 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | * | * | * | * | * |
| G** | - | - | - | - | - | - | - | - | 150 | 150 | 370 | 370 | 370 | 650 | 650 | 650 | 980 | 980 | 980 |
| H | 21 | -8 | -7 | 14 | 15 | 36 | 37 | -2 | -31 | -30 | -9 | -8 | 13 | -36 | -35 | -14 | -13 | 8 | 9 |
| K*** | 33 | 4 | 5 | 26 | 27 | 48 | 49 | 10 | -19 | -18 | 3 | 4 | 25 | -24 | -23 | -2 | -1 | 20 | 21 |
| L | 1305 | 1445 | 1555 | 1645 | 1755 | 1845 | 1955 | 2105 | 2245 | 2355 | 2445 | 2555 | 2645 | 2845 | 2955 | 3045 | 3155 | 3245 | 3355 |
| M | 248 | 265 | 319 | 243 | 297 | 221 | 275 | 259 | 324 | 269 | 321 | 265 | 299 | 269 | 324 | 269 | 322 | 249 | 303 |
| T | 706 | 817 | 928 | 1039 | 1150 | 1261 | 1372 | 1483 | 1594 | 1705 | 1816 | 1927 | 2038 | 2189 | 2300 | 2411 | 2522 | 2633 | 2744 |
| U | 1355 | 1466 | 1577 | 1688 | 1799 | 1910 | 2021 | 2132 | 2243 | 2354 | 2465 | 2576 | 2687 | 2838 | 2949 | 3060 | 3171 | 3282 | 3393 |

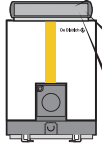













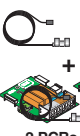
GT530_Q0008
GT530_F0001

CHOICE OF CONTROL PANEL

The control panel is chosen according to the installation to be constructed:

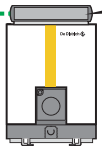








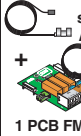

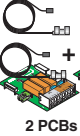
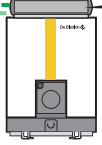




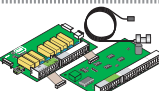
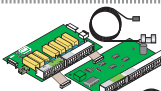
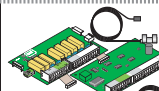
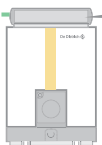

INSTALLATION WITH A SINGLE BOILER

3 types of control panel are possible:

| | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|  <p>GT 330... GT 430... or GT 530...</p> |  <p>Standard</p> | <p>for installations without control system or for ones with a control cabinet in the boiler room</p> | | | | |
| |  <p>B3</p> | <p>for controlling a single direct circuit</p>  | | | | |
| |  <p>DIEMATIC-m3</p> | <p>for controlling a direct circuit (without mixing valve) or depending on the optional equipment connected, for:</p> | | | | |
| | option : |  |  |  |  |  |
| | |  <p>1 flow sensor AD 199</p> |  <p>1 PCB FM 48</p> |  <p>1 flow sensor AD 199 + 1 PCB FM 48</p> |  <p>2 PCBs FM 48</p> |  <p>1 flow sensor AD 199 + 2 PCBs FM 48</p> |

CASCADE INSTALLATION OF 2 TO 10 BOILERS

2 types of control panel are required: 1 DIEMATIC-m3 control panel for the first boiler in the cascade (master boiler) and 1 K3 control panel for each of the slave boilers.

| | | | | | | |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Boiler 1 (master)</p> |  <p>DIEMATIC-m3</p> | <p>for controlling a direct circuit (without mixing valve) or depending on the optional equipment connected, for:</p> | | | | |
| | option : |  |  |  |  |  |
| | |  <p>1 flow sensor AD 199</p> |  <p>1 PCB FM 48</p> |  <p>1 flow sensor AD 199 + 1 PCB FM 48</p> |  <p>2 PCBs FM 48</p> |  <p>1 flow sensor AD 199 + 2 PCBs FM 48</p> |
|  <p>Boiler 2</p> |  <p>K3</p> | <p>in addition, for each of the slave boilers, depending on the optional equipment connected, for:</p> | | | | |
| | option : |  |  |  | | |
| | |  <p>1 Package AD 220</p> |  <p>1 Package AD 220 + 1 PCB FM 48</p> |  <p>1 Package AD 220 + 2 PCBs FM 48</p> | | |
|  |  <p>K3</p> | <p>up to 10 boilers: for each additional slave boiler connected, it is possible to control up to 3 additional valve circuits</p> | | | | |

DHW PRODUCTION

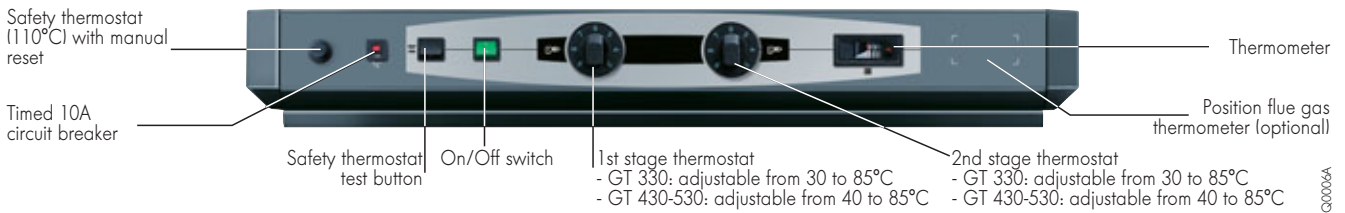
The B3 and DIEMATIC-m3 control panels include the "DHW priority" function and can therefore be complemented with 1 DHW sensor - package AD 212 - for controlling an independent hot water tank.

THE VARIOUS CONTROL PANELS

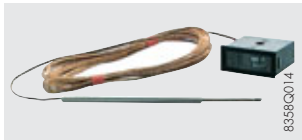
STANDARD CONTROL PANEL

GT 330, GT 430 and GT 530 boilers are delivered with a standard control panel for controlling 1- or 2-stage burners. These

configurations are recommended for heating installations without a control system or with a control cabinet in the boiler room.



Standard control panel option



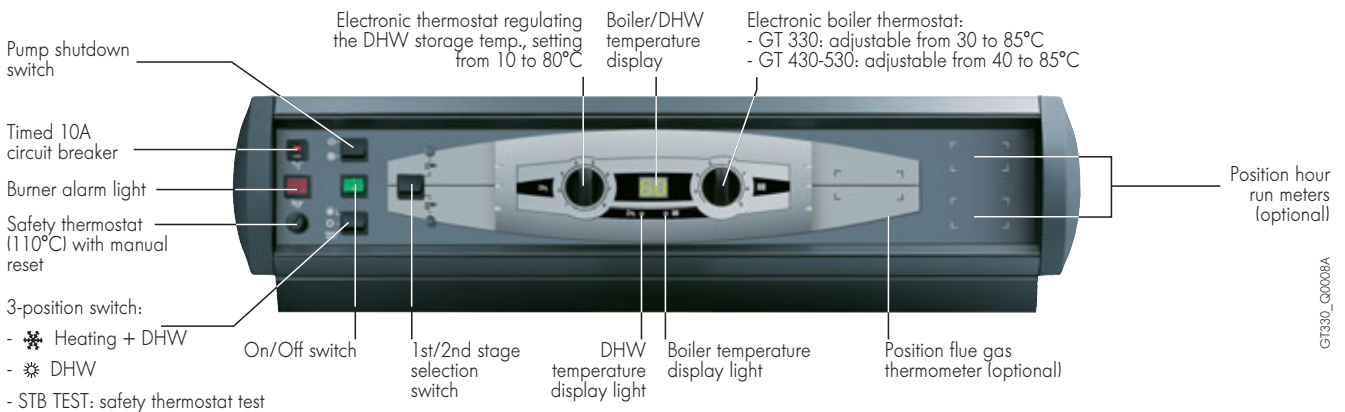
Flue gas thermometer - Package BP 28

This is clipped into the position provided on the control panel.

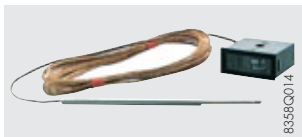
B3 BASIC CONTROL PANEL

The B3 control panel fitted to GT 330 B3, GT 430 B3 and GT 530 B3 boilers is used to control 1- or 2-stage burners. It includes control and safety devices used to operate the installation by regulating its temperature with the boiler

thermostat. It is fitted as standard with domestic hot water production priority (optional DHW sensor: package AD212) when the GT... B3 is connected to an independent tank.



B3 control panel options



Flue gas thermometer - Package BP 28

This is clipped into the position provided on the control panel.



Hour run meter - Package BG 40

Used to display the number of hours of burner operation. If using a 2-stage burner, 2 hour run meters displaying the number of hours of operation

for each stage are required. Can be clipped into the positions provided in the control panel.



Domestic hot water sensor - Package AD 212

This is used to regulate the boiler with domestic hot water temperature priority.



Programmable wire-controlled room thermostat - Package AD 137

Programmable wireless room thermostat - Package AD 200

Non-programmable room thermostat - Package AD 140

These thermostats handle the regulation or weekly heating programme on a direct circuit (models

AD 137 and AD 200) by activating the burner.

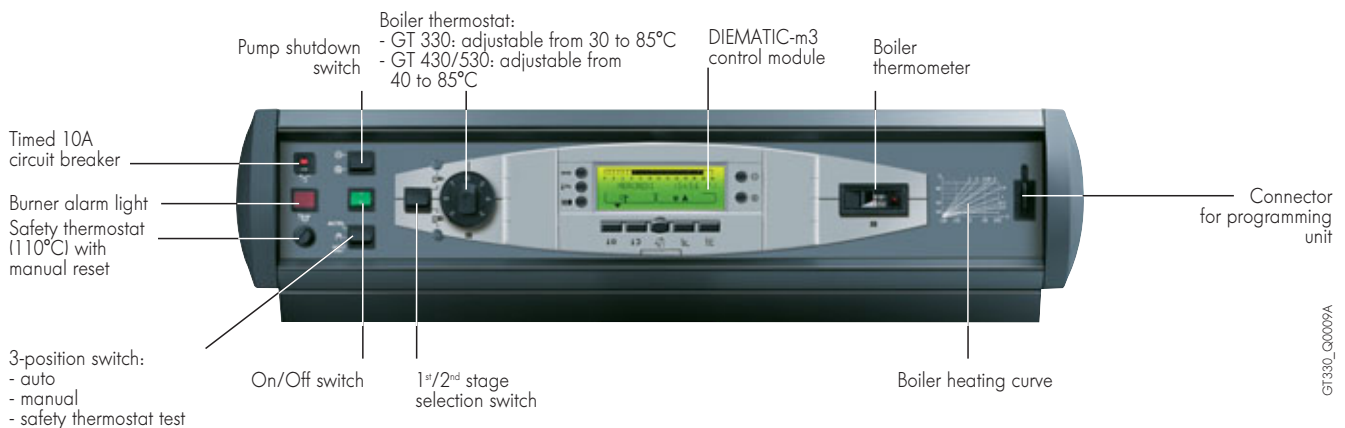
THE VARIOUS CONTROL PANELS

DIEMATIC-m3 AND K3 CONTROL PANELS

The **DIEMATIC-m3 control panel** is a very advanced control panel, which includes electronic programmable regulation as standard to modulate the boiler temperature by activating the burner (1, 2 stages or modulating) according to the outside temperature and the room temperature if a CDI 2 or CDR D.iSystem interactive remote control is connected (optional). As standard, DIEMATIC-m3 is capable of automatically operating a central heating installation with a direct circuit without mixing valve or a circuit with mixing valve (the flow sensor – package AD 199 – must be ordered separately, however). By connecting another 1 or 2 “PCB + sensor for 1 valve circuit” options (package FM 48), it is therefore possible to control up to 3 circuits with mixing valve and each of these circuits can be fitted with a CDI 2 or CDR D.iSystem remote control (optional). Connection of a domestic hot water sensor enables the programming and regulation of a DHW circuit by activating a control system on the load pump; DHW looping can be

handled thanks to the auxiliary contact which includes its own programming. DIEMATIC-m3 also provides antifreeze protection for the installation and the living space if the home is unoccupied and can be programmed 1 year in advance for a period of up to 99 days. Furthermore, the control system includes an “anti-legionella” protection option. Moreover, in the context of larger installations, it is possible to connect from 2 to 10 boilers in cascade: only the first of these boilers will be fitted with the DIEMATIC-m3 control panel, whilst the others will be fitted with the K3 control panel. Each of these GT 330 K3, GT 430 K3 or GT 530 K3 boilers can in turn be complemented with PCBs (AD 220 + 1 or 2 x FM 48) for controlling up to 3 circuits with mixing valve (see p. 5) with or without CDI 2 or CDR D.iSystem remote control.

DIEMATIC-m3 control panel



DIEMATIC-m3 control module:

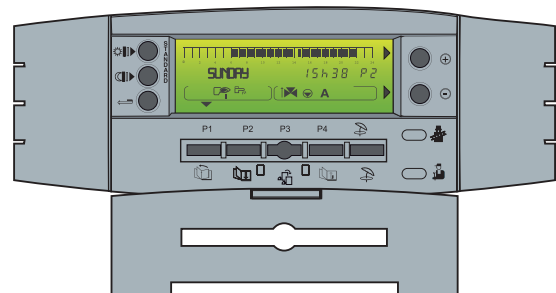
The control module integrated into the DIEMATIC-m3 control panel enables the installer to set the parameters for the entire heating installation, whatever its degree of complexity. It can be used to manage equally well:

- a GT 330 DIEMATIC-m3, GT 430 DIEMATIC-m3 or GT 530 DIEMATIC-m3 boiler installed on its own,
- or a cascade of boilers in which only the first will be fitted with the DIEMATIC-m3 control panel, all the others being fitted with the K3 control panel.

It also enables the user to programme each of the circuits in the installation independently, including those connected to the slave boilers with K3 control panel in a cascade installation. It makes it possible to select the appropriate operating mode for heating (Auto mode depending on programming, “Day”, “Night” or “Antifreeze” temperature mode, whether temporary or permanent), and for domestic hot water production (Auto, temporary or permanent forced load). It also makes it possible to access the various settings parameters and measurements in the installation to modify them or simply consult them, etc.



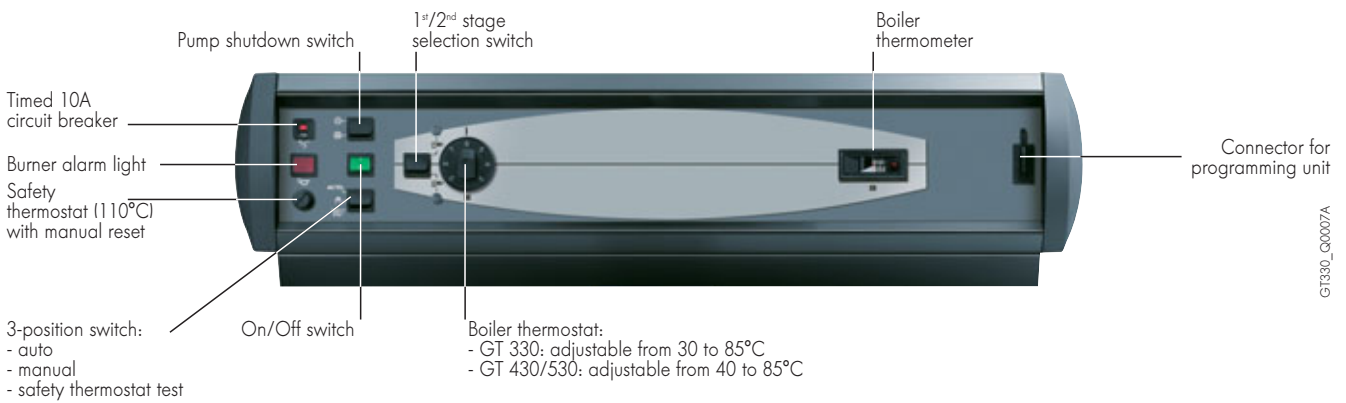
Control module, flap closed



Control module, flap open

THE VARIOUS CONTROL PANELS

K3 control panel



GT330_Q0007A

Note: All of the settings and measurement parameters on each of the boilers in cascades fitted with the K3 control panel can be accessed on the DIEMATIC-m3 control panel on the master boiler

DIEMATIC-m3 and K3 control panel options



Flow sensor downstream of the valve - Package AD 199

This sensor is required in installations which have only circuits with mixing valve (no direct

circuit) to connect the first of these circuits to the DIEMATIC-m3 control panel – see page 8.



PCB + sensor for 1 mixing valve - Package FM 48

This is used to control a mixing valve with a 2-direction electrothermal or electromechanical motor. The valve circuit and its circulating pump can be programmed independently.

Note:

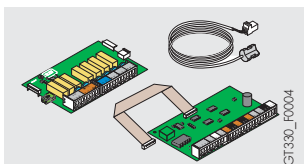
- In addition to sensor AD 199 for the first valve circuit, DIEMATIC-m3 can be fitted with 1 or 2 additional "PCB + sensor for 1 mixing valve" options – see p. 8.
- K3 can also be fitted with these PCBs in addition to the AD 220 PCB required for the first valve circuit connected to a GT... K3.



Domestic hot water sensor - Package AD 212

This is used for priority temperature regulation and programming domestic hot water production

It handles the **boiler sensor function for GT... K3** in a modulating cascade installation.



Relay PCB + sensors for the first valve circuit on a GT... K3 - Package AD 220

This PCB is required to connect the first valve circuit with mixing valve to a **GT... boiler with K3 control panel** as part of a cascade installation.

Note:

1 "relay PCB + sensors for first valve circuit" per GT... K3 boiler can be connected.



Flue gas sensor - Package FM 47

This can be fitted to a **GT... DIEMATIC-m3** boiler or, in cascade installations, to each of the GT... DIEMATIC-m3 or GT... K3 boilers in this cascade.

It enables the user to read the flue gas temperature and thus check the cleanliness of the heat exchange surfaces in the boiler body.

THE VARIOUS CONTROL PANELS



Radio outside temperature sensor – Package AD 251
Boiler radio module (radio transmitter) – Package AD 252

The radio outside temperature sensor can be delivered as optional equipment for systems in which the installation of the external wire connection sensor delivered with DIEMATIC-m3 control panel would be too complex.

If this sensor is used:

- With a wire connection remote control (FM 51 or FM 52), it is necessary to order the "Boiler radio module".



CDI 2 interactive remote control – Package FM 51
CDR D. iSystem interactive "radio" remote control (without transmitter/receiver radio) – Package AD 284
Radio boiler module DIEMATIC iSystem (transmitter/receiver) – Package AD 252

These are used to override all instructions from the DIEMATIC-m3 control panel from the room in which they are installed. In addition, they enable the self-adaptability of the heating regime for the circuit concerned (one CDI 2 or CDR D. iSystem per circuit).

In the case of the CDR D. iSystem, the data are transmitted by radio waves from the place where the CDR D. iSystem is installed to the transmitter/receiver box (package AD 252) placed close to the boiler.



Simplified remote control with room sensor – Package FM 52

The connection of a simplified remote control is used to override certain instructions from the DIEMATIC m3 or K3 control panel from the room in which it is installed: programme override (permanent

comfort or low) and set room temperature override ($\pm 3.5^{\circ}\text{C}$). It is also used to enable the self-adaptability of the heating curve for the circuit concerned (1 simplified remote control per circuit).



BUS connecting cable (length 12 m) – Package AD 134

This cable is used to make the connection between the DIEMATIC-m3 control panel and the transmitter

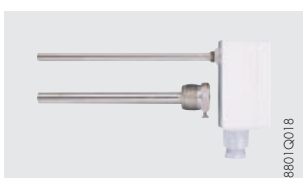
on a remote management network or a DIEMATIC VM iSystem control system.



BUS connecting cable (length 40 m) – Package DB 119

This armoured cable is intended to replace the BUS cable delivered with the GT... K3 (length 12 m) or

the 12 m BUS cable (package AD 134) presented above, when these turn out to be too short.



Dip sensor with sensor tube – Package AD 218

This dip sensor (NTC 147) is delivered with an IP54 junction box and a 1/2" sensor tube, length under head 120 mm. It is used instead of the attachable sensors provided with the valve PCB options. It can

also be used on the decoupling tank in the context of a cascade installation, for example.



Room sensor – Package AD 244

A room sensor is connected to activate the comfort period start-up optimisation function from the room in which it is installed. It is also used to enable the

self-adaptability of the heating curve for the circuit concerned (1 sensor per circuit).



DIEMATIC VM iSystem – Package AD 281

With the addition of a BUS cable, the DIEMATIC-m3 control panel can be completed with one or more DIEMATIC VM iSystem modules (up to 20), making it possible to control 2 additional hydraulic circuits each.

Each of these circuits may be either:

- a heating circuit with motorised 2-way valve
- or a domestic hot water preparation circuit
- or an auxiliary circuit. See specific instruction booklet for the "DIEMATIC VM iSystem".

BOILER OPTIONS

OPTIONS SPECIFIC TO GT 330



Recirculation kit – Package MD 218

This kit, which includes a pump and two gate valves, is fitted to the outlet and return flanges to the rear of the boiler, either right or left. It is used

in installations with a single boiler with flow/return collector.

8553Q007



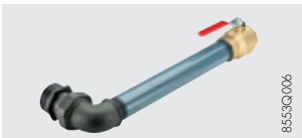
Safety unit up to 115 kW – Package FD 39 (for GT 334-335)

or

Safety unit from 115 to 330 kW – Package FD 42 (for GT 336 to 339)

Includes an automatic air vent, a safety valve calibrated to 6 bar, and a pressure gauge.

8553Q004



Flush valve kit – Package FD 37

Is connected to the flush opening Rp 2 1/2 provided for this purpose on the front of the boiler.

8553Q006

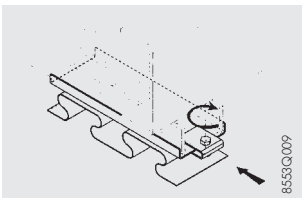


Set of 2 counter flanges with shoulder Ø 2" – Package FD 38

To replace the 2 1/2" Ø counter flanges delivered as standard with the GT 330.

8553Q005

OPTIONS SPECIFIC TO GT 430

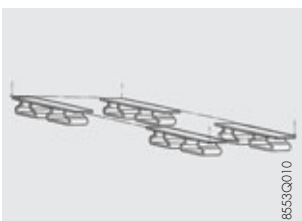


Anti-vibration studs – Package CS 60 and CS 61

| Boiler | Type | GT 430-8 to 430-10 | GT 430-11 to 430-14 |
|-----------------------------|------|--------------------|---------------------|
| Package | N° | CS 60 | CS 61 |
| Length | mm | 271 | 271 |
| Height | mm | 58 | 58 |
| Number of parts per package | | 4 | 6 |

8553Q009

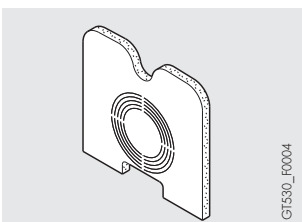
OPTIONS SPECIFIC TO GT 530



Set of anti-vibration studs – Package AK 18 to AK 21

| Boiler | Type | GT 530-7 to 430-9 | GT 530-10 to 530-16 | GT 530-17 to 530-20 | GT 530-21 to 530-25 |
|-----------------------------|------|-------------------|---------------------|---------------------|---------------------|
| Package | N° | AK 18 | AK 19 | AK 20 | AK 21 |
| Length | mm | 100 | 100 | 100 | 100 |
| Height | mm | 43 | 43 | 43 | 43 |
| Compression | mm | 5 | 5 | 5 | 5 |
| Number of parts per package | | 4 | 4 | 4 | 4 |

8553Q010

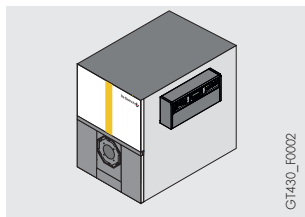


Insulation flue gas box – Package MR 244

G7130_F0004

BOILER OPTIONS

OPTIONS COMMON TO GT 330, GT 430 AND GT 530



GT430_E002

B3 lateral control panel – Package MD140
K3 lateral control panel – Package MD139
DIEMATIC-m3 lateral control panel – Package MD138

The B3, K3 and DIEMATIC-m3 control panels delivered from the factory with GT 330, GT 430 and GT 530 boilers are designed to be fitted to the front and on top of the boiler.

For reasons of accessibility in the boiler room, it may be an advantage to have control panels that can be fitted to the side of the boiler.



8801Q019

Burner relay box 230 V – Package BP 51

By using simple plug-in connectors, this box is used to relay a 230 V burner with specifications higher than the values admitted by the control panel: mechanical output higher than 450 W and a start-

up intensity higher than 16 A. The values admissible are then 1500 W mechanical and 50 A max. for 0.5 seconds.



M300S

M300_Q0001

M... oil or G... gas burners

The oil or gas burners available are particularly compact burners, especially designed to obtain optimum performance in combination with each of

the De Dietrich boilers to which they can be fitted: high efficiency and combustion quality.



M40S

8802Q016A

Burner recommendations per boiler type:

| Boiler/Burners | Domestic fuel oil | Gas Low NOx | Gas Eco. NOx |
|----------------------|---------------------|----------------------|---------------------|
| GT 334 | M302-1S | - | G 201-2N or G203-2N |
| GT 335 | M301-2S or M302-2S | G 301-2S or G 303-2S | G 303-2N |
| GT 336 | M301-3S or M302-3S | G 301-3S or G 303-2S | G 303-3N |
| GT 337 | M301-4S ou M 302-4S | G 303-5S | G 303-3N |
| GT 338 | M302-5S | G 303-5S | G 303-5N |
| GT 339 | M302-5S | G 303-5S | G 303-5N |
| GT 430-8 | M302-6S | G 43-1S | - |
| GT 430-9 | M42-2S or M42-3S | G 43-1S | - |
| GT 430-10 and 430-11 | M42-4S | G 43-2S | - |
| GT 430-12 to 430-14 | M42-5S | G 43-3S | - |
| GT 530-7 | M42-1S | G43-1S | - |
| GT 530-8 | M42-2S or M42-3S | G43-1S | - |
| GT 530-9 and 530-10 | M42-4S | G43-2S | - |
| GT 530-11 | M42-4S | G43-3S | - |
| GT 530-12 to 530-16 | M42-5S | G43-3S | - |
| GT 530-17 to 530-23 | M52-1S | G53-1S | - |
| GT 530-24 and 530-25 | M52-1S | G53-2S | - |

NB: G 40/G 50 burners should be completed with a gas train adapted to the mains gas pressure



G300S

G300_Q0002

The specifications and performances of these burners are given in the various technical booklets which cover them.



G50S

8802Q034



BPB/BLC...

B 800/1000

BLC_Q0001A - 8962Q001A

Domestic hot water production

De Dietrich BPB or BLC series independent hot water tanks with a capacity of 150 to 500 litres or the B 800/1000 can be used for domestic hot water production for individual and collective dwellings as well as for industrial and commercial premises. They are lined with food quality standard high quartz content vitrified enamel and protected by

an anode (magnesium for BPB/BLC..., "Correx[®]" imposed current for B 800/1000). The specifications and performances of these tanks are given in the technical leaflets – BPB/BLC 150 to 500 and B 800-1000 Independent Hot Water Tanks.

INFORMATION REQUIRED FOR INSTALLATION

INSTALLATION IN BOILER ROOMS

Ventilation

This must comply with prevailing national regulations

Examples (valid in France):

Top and bottom ventilation mandatory

- Top ventilation:

Cross section equal to half of the total cross section of the flue gas conduits with a minimum of 2.5 dm².

- Bottom ventilation:

$$\text{Direct air inlet: } S \text{ (dm}^2\text{)} \geq \frac{0.86 P}{20}$$

$P = \text{Installed output in kW}$

The air inlets must be located in such a way in relation to the top ventilation vents that air is renewed in the entire volume of the boiler room.



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

These compounds are present, for example, in aerosol spray cans, paints, solvents, cleaning products, washing powders/liquids, detergents, glues, snow clearing salts, etc.

It is therefore necessary:

- To avoid sucking in air discharged from premises using such products: hairdressers, dry cleaners, industrial premises (solvents), premises containing refrigeration systems (risk of leaking refrigeration fluid), etc.

- To avoid the storage of such products close to boilers.

Please note that, if the boiler and/or its peripherals become corroded by chloride and/or fluoride compounds, our contractual warranty cannot be invoked.

Installation

The dimensions shown in red are the minimum recommended dimensions for providing adequate access around the boiler.

They are given in metres.

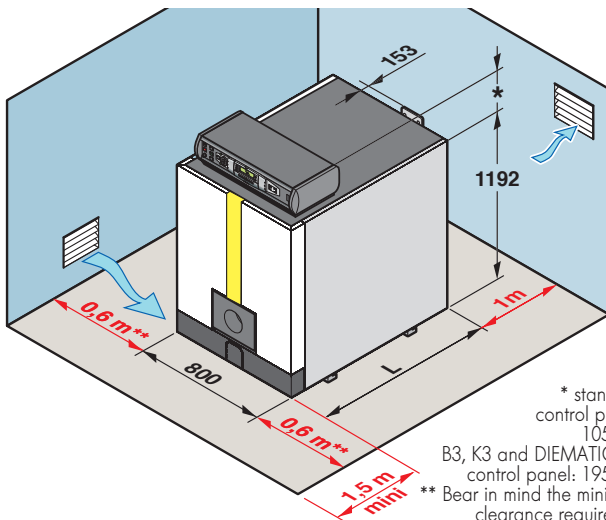
These dimensions also allow clearance for the assembly tools in front of and behind the boiler when assembling the boiler body.

Dimensions of the assembled body and the base frame

The dimensions indicated provide adequate access in the boiler room and also allow for the dimensions of the base frame.

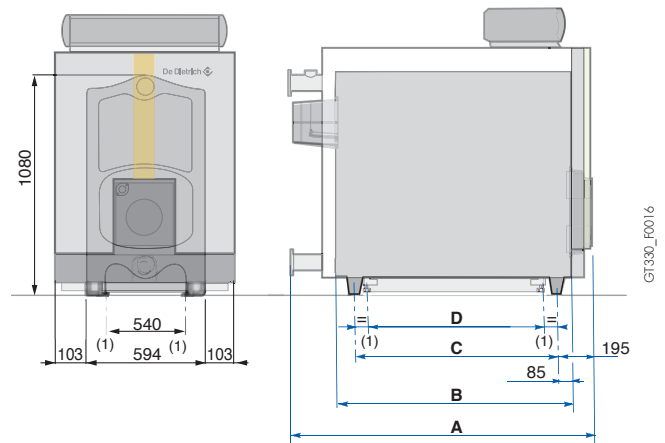
The upper lateral openings on the front and rear sections can be used for lifting the assembled boiler body.

GT 330



* standard control panel: 105 mm
B3, K3 and DIEMATIC-m3 control panel: 195 mm
** Bear in mind the minimum clearance required to open the door to the right or to the left when the burner is fitted

GT330_F0012B



GT330_F0016

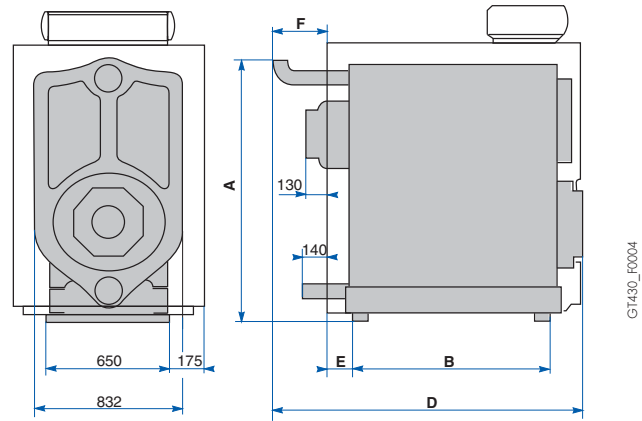
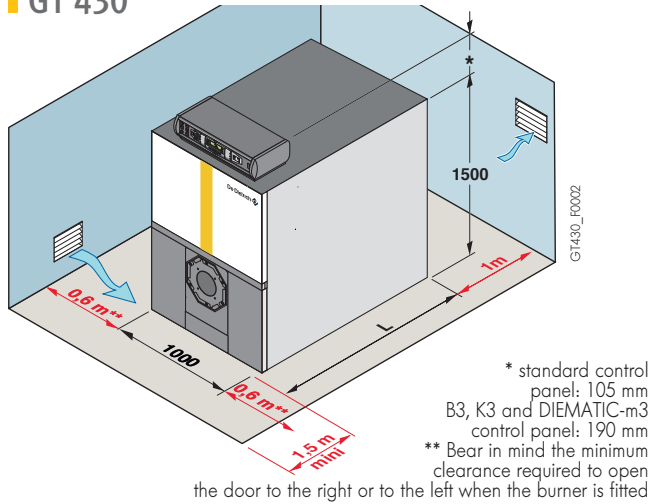
| GT | | 334 | 335 | 336 | 337 | 338 | 339 |
|----|----|-----|------|------|------|------|------|
| L | mm | 840 | 1000 | 1160 | 1320 | 1480 | 1640 |

| GT | | 334 | 335 | 336 | 337 | 338 | 339 |
|----|----|-----|------|------|------|------|------|
| A | mm | 991 | 1151 | 1311 | 1471 | 1631 | 1791 |
| B | mm | 660 | 820 | 980 | 1140 | 1300 | 1460 |
| C | mm | 490 | 650 | 810 | 970 | 1130 | 1290 |
| D | mm | 413 | 573 | 733 | 893 | 1053 | 1213 |

(1) 4 feet adjustable from 0 to 40 mm

INFORMATION REQUIRED FOR INSTALLATION

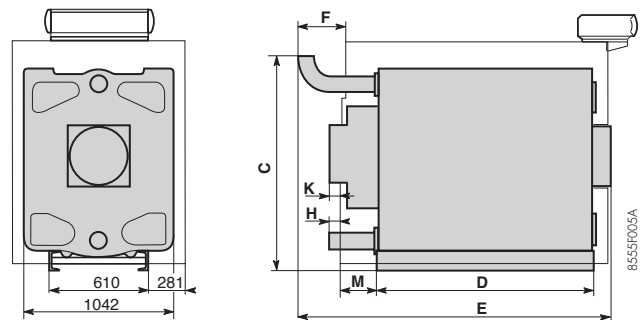
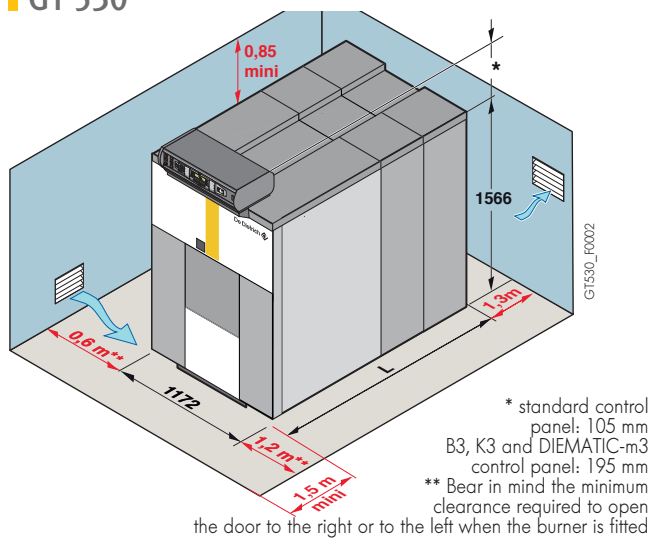
GT 430



| GT 430- | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------|------|------|------|------|------|------|------|
| L mm | 1505 | 1665 | 1825 | 1985 | 2145 | 2305 | 2465 |

| GT 430- | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------|------|------|------|------|------|------|------|
| A mm | 1427 | 1427 | 1427 | 1447 | 1447 | 1447 | 1447 |
| B mm | 1210 | 1530 | 1530 | 1850 | 1850 | 2170 | 2170 |
| D mm | 1803 | 1963 | 2123 | 2309 | 2469 | 2629 | 2789 |
| E mm | 170 | 0 | 160 | 0 | 160 | 0 | 160 |
| F mm | 276 | 276 | 276 | 302 | 302 | 302 | 302 |

GT 530



| GT 530- | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L mm | 1305 | 1445 | 1555 | 1645 | 1755 | 1845 | 1955 | 2105 | 2245 | 2355 | 2445 | 2555 | 2645 | 2845 | 2955 | 3045 | 3155 | 3245 | 3355 |
| C mm | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1488 | 1504 | 1504 | 1504 | 1504 | 1504 | 1504 | 1504 | 1504 |
| D mm | 967 | 1078 | 1078 | 1300 | 1300 | 1522 | 1522 | 1744 | 1744 | 1966 | 1966 | 2188 | 2188 | 2450 | 2450 | 2672 | 2672 | 2984 | 2984 |
| E mm | 1604 | 1715 | 1826 | 1937 | 2048 | 2159 | 2270 | 2381 | 2492 | 2603 | 2714 | 2860 | 2971 | 3122 | 3233 | 3344 | 3455 | 3566 | 3677 |
| F mm | 310 | 281 | 282 | 303 | 304 | 325 | 326 | 287 | 258 | 259 | 280 | 316 | 337 | 288 | 289 | 310 | 311 | 332 | 333 |
| H mm | 21 | -8 | -7 | 14 | 15 | 36 | 37 | -2 | -31 | -30 | -9 | -8 | 13 | -36 | -35 | -14 | -13 | 8 | 9 |
| K* mm | 33 | 4 | 5 | 26 | 27 | 48 | 49 | 10 | -19 | -18 | 3 | 4 | 25 | -24 | -23 | -2 | -1 | 20 | 21 |
| M mm | 248 | 265 | 319 | 243 | 297 | 221 | 275 | 259 | 324 | 269 | 321 | 265 | 299 | 269 | 324 | 269 | 324 | 249 | 303 |

* Dimension corresponding to the extremity of the chimney connection (nozzle height 100 mm)

CONNECTION TO THE CHIMNEY

The high performances of modern boilers, their use in particular conditions connected with the development of burner technologies (operation at 1st stage or at the lower end of the modulation range) provide low, or even very low flue gas temperatures. This necessitates the use of flues designed to enable the flow of the condensates which may result from such operating modes, thus preventing the risk of damage to the chimney.

To define the cross section and height of the chimney, refer to the prevailing regulations. It should be noted that GT 330/430/530 boilers are boilers with a sealed pressurised combustion chamber and that the nozzle pressure must not exceed 0 mbar unless particular precautions have been taken to check the seal, in the case of connection to a static recuperator/condenser, for example.

INFORMATION REQUIRED FOR INSTALLATION

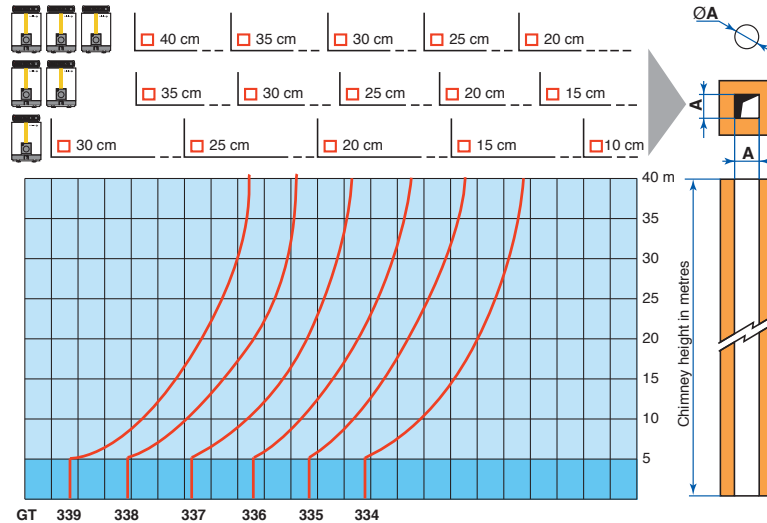
The calculation charts below show the minimum dimension (in cm) of the sides of a chimney with a square cross section, depending on its height (in m) for each type of GT 330/430/530 boiler with the connection of one, two or three boilers per chimney. If using tubing, its interior diameter will be equal to dimension A. These dimensions are given as a rough guide for a horizontal connection length between the nozzle and the chimney equal to 5 m

maximum, comprising a maximum of one 90° elbow and one T-vent. However, care must be taken to comply with prevailing (national or local) regulations.

Note:

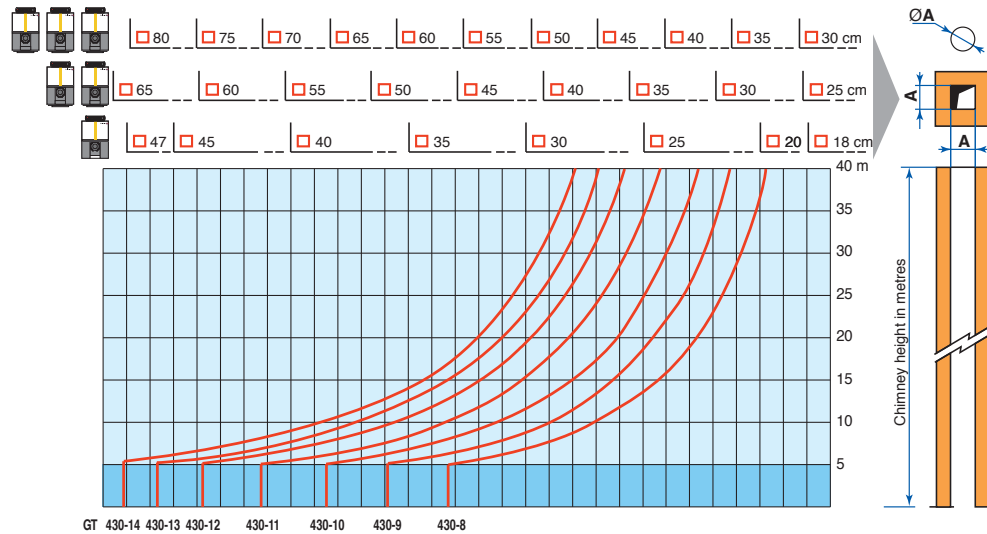
Depending on the configuration of the chimney, it may be necessary to add a draft moderator to ensure a partial vacuum of zero at the boiler nozzle.

GT 330



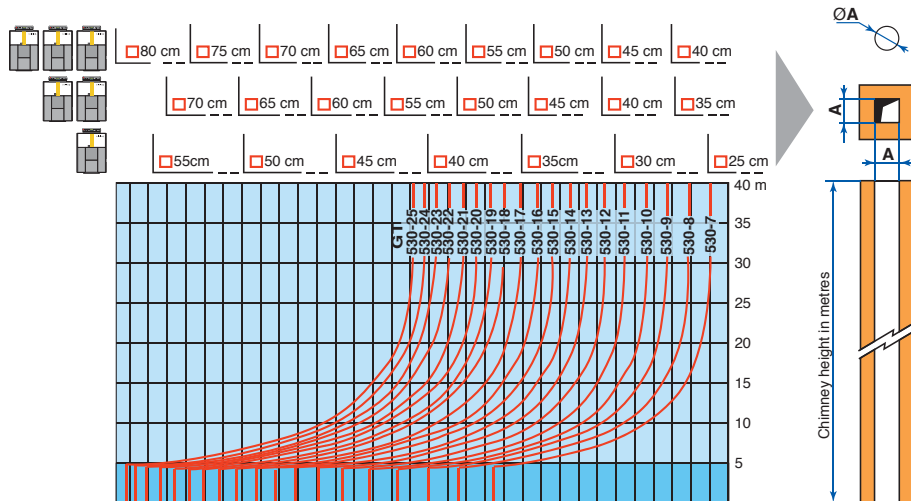
GT330_F0021

GT 430



GT430_F0003

GT 530



GT530_F0003

INFORMATION REQUIRED FOR INSTALLATION

INSTRUCTIONS FOR THE HYDRAULIC CONNECTION OF BOILERS WITH AN OUTPUT EQUAL TO OR GREATER THAN 116 KW

Operating in cascade

After stopping the burner:

- time delay required before the order to close a gate valve: 3 min.
- order to stop the shunt pump (located between the boiler and the gate valves) using the limit switch contact on the gate valve.

Operation in 2 stages with an oil or gas burner

- boiler temperature maintained at 50°C or higher; the first stage must be set to a minimum of 30% of the nominal output.
- operating at modulated low temperature; the first stage must be set to a minimum of 50% of the nominal output.

Operating with a modulating gas burner

- boiler temperature maintained at 50°C or higher; the burner can modulate down to 30% of the nominal output.
- operating at low modulated temperature; the burner can modulate down to 50% of the nominal output.

Water flow rate in the boiler

When the burner is operating, the water flow rate in the boiler must be between 1/3 of the nominal flow rate and 3 times the nominal flow rate.

$$\text{Nominal flow } Q_n = \frac{0.86 P_n}{15}$$

$$\text{Minimum flow } Q_{\min} = \frac{Q_n}{3} = \frac{0.86 P_n}{45}$$

$$\text{Maximum flow } Q_{\max} = 3 \times Q_n = \frac{0.86 P_n}{5}$$

Q_n in m^3/h

P_n Nominal output (maximum boiler output) in kW

INSTALLATION DIAGRAMS

The examples presented below cannot cover the full range of installation scenarios which may be encountered. Their purpose is to draw the attention to the basic rules to be followed. A certain number of control and safety devices are represented but, in the last resort, it is up to the experts, consultant engineers and design departments to make the final decision on the control and safety devices to be used in the boiler room, depending on its specificities.

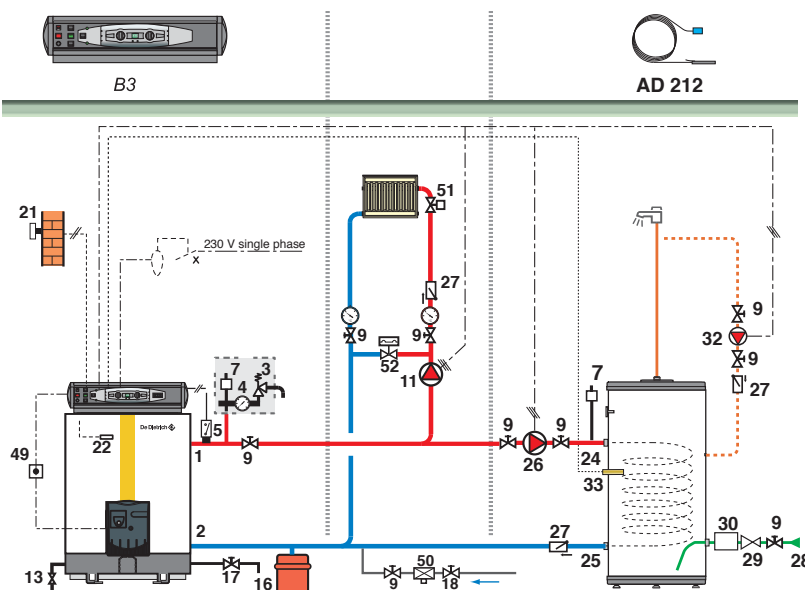
In all events, it is necessary to abide by the codes of practice and the prevailing local and national regulations.

Note:

For the connection of domestic hot water, a sleeve made of steel, cast iron or any other insulating material must be interposed between the hot water outlet and these pipes to prevent any corrosion to the connections, if the distribution pipes are made of copper.

Installation of a GT 330 B3 with 1 direct circuit + 1 domestic hot water circuit

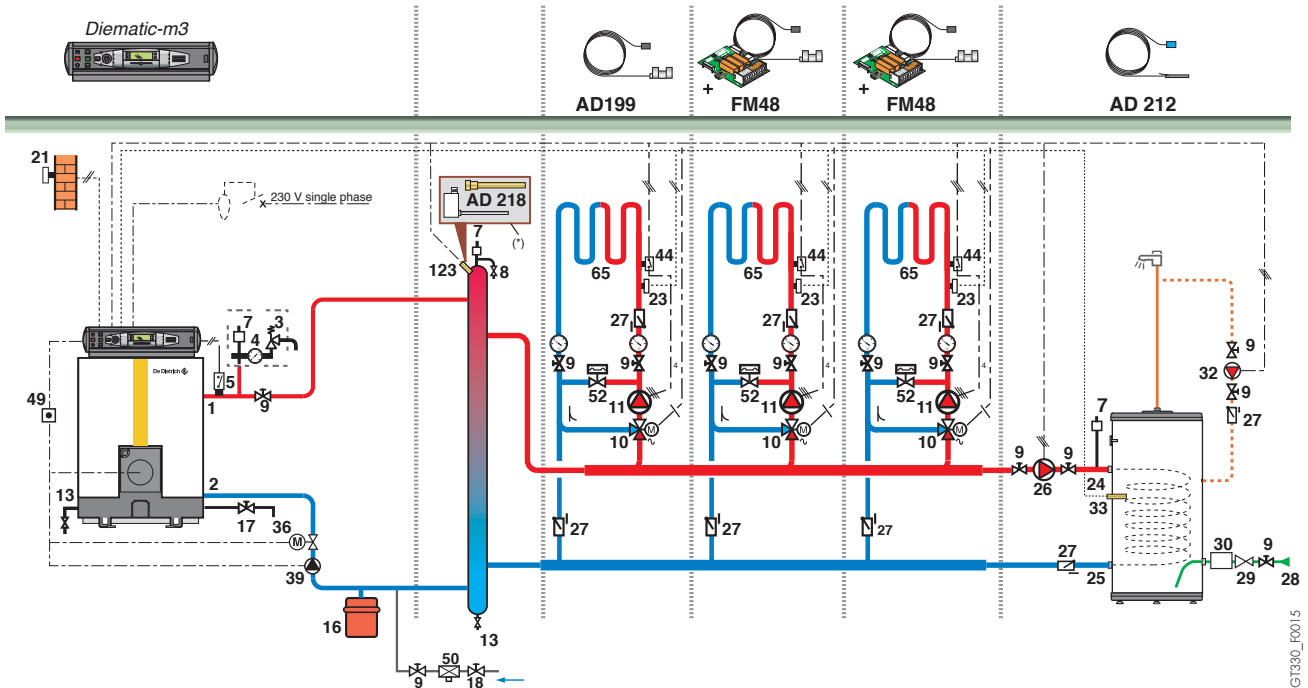
(Schematic valid by analogy for a GT 430 B3 or a GT 530 B3)



INFORMATION REQUIRED FOR INSTALLATION

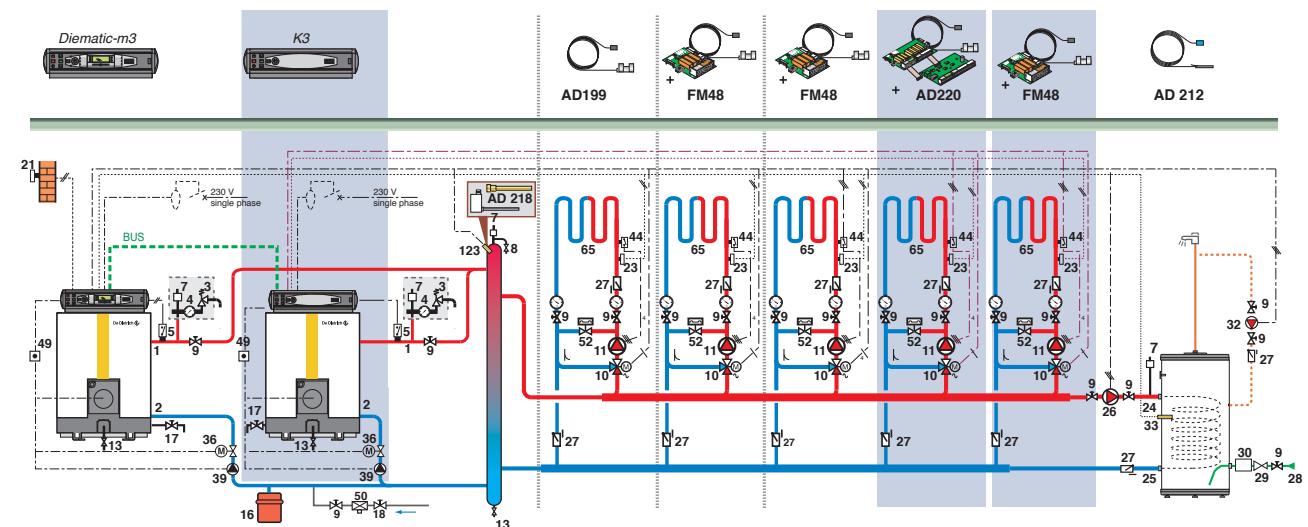
Installation of a GT 330 DIEMATIC-m3 with 3 circuits with mixing valve + 1 domestic hot water circuit, all behind a decoupling cylinder

(Schematic valid by analogy for a GT 430 DIEMATIC-m3 or a GT 530 DIEMATIC-m3)



GT330_F0015

Installation of 2 boilers in cascade with 3 circuits with mixing valve + 1 domestic hot water circuit connected to the GT 330, 430 or 530 DIEMATIC-m3 master boiler, and 2 circuits with mixing valve connected to boiler no. 2: GT 330/430/530 K3, all of these circuits behind a decoupling cylinder



GT330_F0013

- | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> 1 Heating flow 2 Heating return 3 Safety valve 4 Pressure gauge 5 Flow rate controller 7 Automatic air vent 8 Manual air vent 9 Valve 10 3-way mixing valve 11 Heating pump 13 Flush valve 16 Expansion tank 17 Drainage valve 18 Heat circuit filling 21 Outside temperature sensor | <ul style="list-style-type: none"> 22 Boiler control system sensor 23 Flow temp. sensor downstream of mixing valve 24 Primary inlet on the DHW tank exchanger 25 Primary outlet on the DHW tank exchanger 26 DHW load pump 27 Non-return valve 28 Domestic cold water inlet 29 Pressure reducer 30 Sealed safety unit calibrated to 7 bar* 32 DHW loop pump (optional) 33 DHW temperature sensor | <ul style="list-style-type: none"> 36 Motorised gate valve 39 Injection pump 44 Thermostat limiting the temperature to 65°C with manual reset for underfloor heating 49 Contactor mandatory if the burner is powered with three-phase current or if the specifications of the 230 V burner are higher than those admissible by the control panel 50 Disconnector 51 Thermostatic valve 52 Differential valve (only with module fitted with a 3-speed pump) | <ul style="list-style-type: none"> 56 DHW circulation loop return 61 Thermometer 65 Low temperature circuit (radiator or underfloor heating) 123 Cascade flow sensor <p>(*) In this kind of system, the installation of a dip sensor (package AD 218) in the decoupling cylinder is recommended. However, it is also possible to use the boiler sensor provided with the GT 330 DIEMATIC-m3</p> <p>* mandatory, in compliance with safety directives: we recommend hydraulic safety units with membranes.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

TECHNICAL DESCRIPTION

GT 330 - GT 430 - GT 530

Pressurized cast iron boilers with high combustion efficiency

Brand: De Dietrich
Model: GT ... - ____
Useful output: ____ kW
Water content: ____ litres
Operating pressure: 6 bar
Max. Operating temperature: 110°C
Pressure in combustion chamber: ____ mbar
Footprint: ____ (L) x ____ (l) mm

Number of sections: ____
Net weight: ____ kg
Equipment's: Preset flow controller- Burner plate predrilled to be wished - Base frame.
Ø Flue gas nozzle: ____ mm
Ø Departure/return: ____ / ____
The boiler body can be delivered in bulk (to be assembled on site) or assembled, tested in factory.

DESCRIPTION

- Complies with the requirements of European Directives.
- Heating body in Eutectic cast iron, with a wet pressurized open (unstoppered) combustion chamber having a built-in 3-way flue operating at low inlet temperature, modulated down to 30°C (by GT 330) 40 °C by GT430/530 and with complete cooling between two heating requests.
- The combustion chamber design ensures a low NOx level.
- Efficiency greater than 91.5 % by GT 330 and 90% by GT 430/530 NCV; ★★CE according to the output directive
- Cast iron convection turbulators are fitted as standard to all flues ways.
- Total insulation of the heating body with glass wool (at least 100 mm thick).
- GT 430/530: Flame display hatch on the left and on the right of the combustion chamber plate fitted with connections for air supply. Reversible burner door (left or right opening) with thick insulation (80 to 140 mm).
- The boiler is fitted with a metal frame which acts as a base and ensures the unit's stability. It allows the easy assembly of the sections and allows the heating body to expand during operation.
- Double tightness from the doors and hatches.
- The front casing is pre-cut to enable easy connection of the sludge flush opening.
- Steel casing coated on both sides with kiln-baked epoxy polyester paint with 2 built-in cable ways (low voltage and very low voltage) in the side panels.
- The water circuit is rendered leak-tight by bispherical nipples which facilitate the installation of the cast iron sections and is resistant to the high operating pressure (6 bar).
- Maintenance of the boiler is facilitated by:
 - The hinged doors for sweeping.
 - The modularity of the convection accelerators which can be removed and cleaned on the floor.
 - A flue design in which the lower section is smooth enabling the use of a vacuum nozzle Ø 40 mm. This system guarantees that the heating body can be thoroughly cleaned.
 - Cleaning hatches directly accessible without removing the casing.

Boiler options

- Dip sensor with sensor tube, burner relay box (GT 330/430/530)
- Set of anti vibration studs (GT 430/530)
- Recirculation kit up to 150 kW from 115 to 330 kW (GT 330)
- Safety unit: up to 115 kW, from 115 to 330 kW (GT 330)
- Drainage valve kit (GT 330)
- Burner plate: Ø 175-220, Ø 175-270 (GT 330)
- Set of 2 counter-flanges with shoulder Ø 2 (GT 330)

Standard control panel:

Control panel for controlling 1- or 2-stage burners. These configurations are recommended for heating installations without a control system or with a control cabinet in the boiler room.

Options

- Flue gas thermometer

Control panel B3:

The B3 control panel is used to control 1- or 2-stage burners. It includes control and safety devices used to operate the installation by regulating its temperature with the boiler thermostat. It is fitted as standard with domestic hot water production priority (optional DHW sensor).

Options

- Flue gas thermometer, hour run meter, domestic hot water sensor
- Non-programmable room thermostat
- Programmable wire-controlled room thermostat
- Programmable wireless room thermostat.

Control panel K3:

The K3 control panel is fitted only in association with a boiler fitted with a DIEMATIC-m3 control panel as part of a cascade installation. DHW regulation and programming is handled by the DIEMATIC-m3 control panel on the master boiler. The K3 control panel includes a boiler thermostat, a thermometer and a safety thermostat, a USB connection to update the program and for the monitoring of the temperatures.

Control panel DIEMATIC-m3:

Advanced control panel which includes electronic programmable regulation according to the outside temperature to control up until 3 circuits with mixing valve, enables the programming and regulation of a DHW circuit and the connection from 2 to 10 boilers in cascade. The control panel is fitted with a USB connection to update the program and for the monitoring of the temperatures.

DIEMATIC-m3 and K3 control panel options

- Flow sensor downstream of the valve, domestic hot water sensor
- Dip sensor with sensor tube
- PCB + sensor for 1 mixing valve, flue gas sensor
- Relay PCB + sensor for 1st mixing valve
- Radio outside temperature sensor
- Boiler radio module (radio transmitter), interactive remote control CDI 2
- Radio remote control (without radio transmitter) CDR D.iSystem
- Simplified remote control with room sensor
- BUS connecting cable (length 12 m)
- BUS connecting (length 40 m)
- Extension BUS cable, DIEMATIC VM iSystem.

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De Dietrich 

