EUTECTIC CAST IRON BOILERS

RESIDENTIAL

GT 120A



- 88% Efficiency on Oil and 85% Efficiency on Gas
- Near Condensing Eutectic Cast Iron
- Maximum Working Pressure 60 p.s.i.
- Thermal Shock Proof Guaranteed
- Conventional or Direct Vent Option Available

1 1 6 6 1 1 1 1

Innovative Design For Better Fuel Efficiency



A Symbol of Quality Engineering For Over Three Centuries



Quiet And High Performance Savings



www.dedietrichboilers.com













Low Return Water Capability **Maximizes Energy Savings**

Advanced Eutectic Cast Iron Technology And Offering high heat absorbtion and Lower Fuel Consumption



Lower Return Water Temperature Capabilities Saves Energy



Over Three Centuries Of Manufacturing Experience



The De Dietrich GT 120 A is a forced draft three pass Eutectic Cast Iron Boiler achieving the highest AFUE and thermal efficiency in the market, up to 88% on oil and 85% on gas. The heat exchanger is designed with the most forgiving eutectic cast iron which provides the highest protection against corrosion and thermal shock that will allow the boiler to last a lifetime. The boiler is designed to allow the contractor to easily clean and maintain the boiler thus saving time and money.

The GT 120A is a Forced Draft Three Pass

Boiler. The heat exchanger is designed from high technology eutectic cast iron which provides better protection against corrosion and perfect resistance to thermal shock plus money saving through easy cleaning and maintenance. The GT 120A achieves high AFUE & thermal efficiencies up to 88%.

Low Noise Levels are the norm with the design of the De Dietrich GT 120A heat exchanger. De Dietrich uses only high efficiency burners that are quiet and compliment the inherent low noise levels of the De Dietrich GT 120A.

Low Water Outlet Temperature down to 86°F [30°C] with indoor/outdoor reset achieves significant energy savings by reducing stand-by fuel consumption. In addition, it's not necessary to maintain boiler temperature between the two heating cycles, which further reduces fuel consumption and achieves excellent overall efficiency.

Eutectic Cast Iron sections provides exceptional resistance to corrosion, temperature variations and thermal stress. De Dietrich's eutectic cast iron is 30% more flexible than any competitive cast iron allowing safe low temperature operation without concern.

Insulated Boiler

The boiler sections are completely insulated to increase heat absorbtion and reduced fuel consumption by increasing the thermal efficiency. The insulation also reduces standby iacket heat losses.

The De Dietrich ME 50 control panel that comes standard with the GT 120A is equipped with all the necessary controls to make the boiler plug and play. The optional De Dietrich BTC allows for even greater boiler control and energy savings. The De Dietrich BTC is easily installed in the ME 50 control panel in the field or can come factory installed.

ME 50 panel for single or 2 stage operation



The standard panel comes complete conventional controls to provide plug and play operation. For optimum energy savings and boiler control the boiler control panel can be upgraded in the field or directly from the factory with a "De Dietrich BTC".



and low emissions.

High Performance Low-Temperature Return Eutectic Cast Iron Boilers

Bi-Sipherical boiler section waterway push nipples ensure leak free seal. Boiler sections are sealed with asilicon wrapped thermocord for air tight sealed combustion chamber.

Quality is not only in the eutectic cast iron but also in the state of the art control panel and the appearance of the appliance.



The optionnal De Dietrich BTC (Boiler Temperature Controller) is a cost effective boiler operator with a digital LCD display with backlight, a boiler pump output, an alarm output, and two stage outputs. The control regulates the boiler based upon setpoint, outdoor reset with domestic hot water heating priority and several options for external boiler control. Easy to install and set up is one of the great features along with these additionnal features:

- Setpoint Operation
- Outdoor reset with DHW Priority
- External Control through BMS
- Boiler Pump Operation and Purge
- DHW Pump and Purge
- DHW Priority
- Primary Secondary Piping

Combustion chamber flame observation window

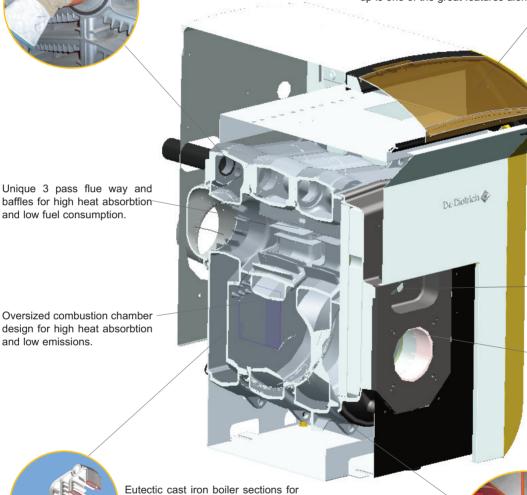
access to routine boiler-burner service.

■ Parallel Piping

■ Display Backlight

Insulated hinged boiler/burner door to reduce noise heat loses, allowing easy the combustion chamber for

> Complete insulated boiler body with fiberglass wool

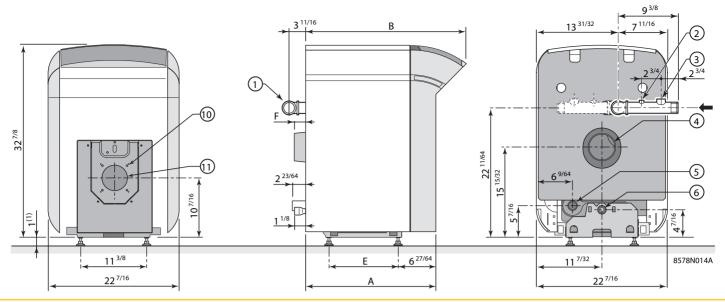




high corrosion & thermal resistance meaning low energy consumption

and longer boiler life...

Setting the Benchmark for Low-Temperature **Near-Condensing Eutectic Cast Iron Boilers**



- 1 1-1/4" threaded heating outlet (supply outlet)
- 2 Tapping 1/4" (P/T gauge)
- 3 Tapping 3/4" (relief valve)
- 5 1-1/4" threaded heating return (return inlet)
- 6 1/2" tapped draining outlet

- **10** 4 x M8 on 5-^{29/32}"
 - markings on Dia. 6-15/16"
- **11** Dia.4-21/64" hole Dia. 5-7/64" cut-out
- GT 123A **GT 124A** A., 22-1/4
 - 26-59/64 31-31/32
- **GT 125A** 32-1/4 36-31/32
- GT 126A 37-1/4 41-31/32

D., 4-59/64 E.. 11-^{13/16} **F..** 1-31/32

B.. 26-^{31/32}

- 4-59/64 16-13/16 1-31/32
- 4-59/64 21-13/16 1_31/32
- 6-31/32 26-13/16 3-29/32

TECHNICAL SPECIFICATIONS

Boiler Model	Riello B	Firing		
	#2 Oil	Gas	Sequence	
GT 123A	40 F3 LBT & 40 BF3 LBT	40 G200 SBT NG or LPG		
GT 124A	41 F3 LBT & 41 G200 SBT 40 BF3 LBT NG or LPG		On/Off	
GT 125A	42 F3 LBT & 40 BF3 LBT	42 G200 SBT NG or LPG	Single Stage Only	
GT 126A	43 F3 LBT & 40 BF3 LBT	43 G200 SBT NG or LPG		

The GT120A high efficiency boiler comes standard with Riello 40 Series gas or oil burners, other burners available consult factory.

Firing Sequence Gas-Oil - On-Off - Single Stage Only [CSA] - Gas Input MBH [Kw] 94 [27.5] 115 [33.7] 144 [42.2] 166 [48.7] [CSA] - #2 Fuel Oil Input US GPH 0.65 0.80 1.00 1.15 [CSA] - Output [Gas-Oil] MBH [Kw] 80 [23.4] 98 [28.6] 122 [35.9] 141 [41.4] [CSA] - AFUE Effy. % Gas 85.5% & Oil 88% Cast Iron Sections # 3 4 5 6 Flue-way Baffles # 3 2 2 0 Water Capacity US Gal [L] 5 [19] 6.5 [24.5] 7.9 [30] 9.4 [35.5] Water Resistance 27* F [15k] Ft H2O [mbar] 0.08 [0.08] 0.08 [3.2] 0.17 [5.0] 0.35 [10.1] Combustion Chamber Volume Ft ³ [m ³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. F [*C] 230 [110] Operating temperature range F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 5 5 6	Item	Unit	Model				
[CSA] - Gas Input MBH [Kw] 94 [27.5] 115 [33.7] 144 [42.2] 166 [48.7] [CSA] - #2 Fuel Oil Input US GPH 0.65 0.80 1.00 1.15 [CSA] - Output [Gas-Oil] MBH [Kw] 80 [23.4] 98 [28.6] 122 [35.9] 141 [41.4] [CSA] - AFUE Effy. % Gas 85.5% & Oil 88% Cast Iron Sections # 3 4 5 6 Flue-way Baffles # 3 2 2 0 Water Capacity US Gal [L] 5 [19] 6.5 [24.5] 7.9 [30] 9.4 [35.5] Water Resistance 27° F [15k] Ft H2O [mbar] 0.08 [0.08] 0.08 [3.2] 0.17 [5.0] 0.35 [10.1] Combustion Chamber Volume Ft ³ [m ³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. "F ["C] 230 [110] <td>GT 123 A</td> <td>GT 124 A</td> <td>GT 125 A</td> <td>GT 126 A</td>			GT 123 A	GT 124 A	GT 125 A	GT 126 A	
[CSA] - #2 Fuel Oil Input US GPH 0.65 0.80 1.00 1.15 [CSA] - Output [Gas-Oil] MBH [Kw] 80 [23.4] 98 [28.6] 122 [35.9] 141 [41.4] [CSA] - AFUE Effy. % Gas 85.5% & Oil 88% Cast Iron Sections # 3 4 5 6 Flue-way Baffles # 3 2 2 0 Water Capacity US Gal [L] 5 [19] 6.5 [24.5] 7.9 [30] 9.4 [35.5] Water Resistance 27° F [15k] Ft H2O [mbar] 0.08 [0.08] 0.08 [3.2] 0.17 [5.0] 0.35 [10.1] Combustion Chamber Volume Ft³ [m³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. 'F ['C] 230 [110] Operating temperature range 'F 86 - 194 [30 - 90] 0.09 [0.22] 0.09 [0.22] 0.	Firing Sequence		Gas-Oil - On-Off - Single Stage Only				
[CSA] - Output [Gas-Oil] MBH [Kw] 80 [23.4] 98 [28.6] 122 [35.9] 141 [41.4] [CSA] - AFUE Effy. % Gas 85.5% & Oil 88% Cast Iron Sections # 3 4 5 6 Flue-way Baffles # 3 2 2 0 Water Capacity US Gal [L] 5 [19] 6.5 [24.5] 7.9 [30] 9.4 [35.5] Water Resistance 27° F [15k] Ft H2O [mbar] 0.08 [0.08] 0.08 [3.2] 0.17 [5.0] 0.35 [10.1] Combustion Chamber Volume Ft³ [m³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. "F ["C] 230 [110] Operating temperature range "F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22]	[CSA] - Gas Input	MBH [Kw]	94 [27.5]	115 [33.7]	144 [42.2]	166 [48.7]	
[CSA] - AFUE Effy.	[CSA] - #2 Fuel Oil Input	US GPH	0.65	0.80	1.00	1.15	
Cast Iron Sections # 3 4 5 6 Flue-way Baffles # 3 2 2 0 Water Capacity US Gal [L] 5 [19] 6.5 [24.5] 7.9 [30] 9.4 [35.5] Water Resistance 27° F [15k] Ft H2O [mbar] 0.08 [0.08] 0.08 [3.2] 0.17 [5.0] 0.35 [10.1] Combustion Chamber Volume Ft ³ [m³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. 'F ['C] 230 [110] Operating temperature range 'F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IIV & Sidewall Boiler Vent Connection Inch 5 5 5	[CSA] - Output [Gas-Oil]	MBH [Kw]	80 [23.4]	98 [28.6]	122 [35.9]	141 [41.4]	
Flue-way Baffles	[CSA] - AFUE Effy.	%	Gas 85.5% & Oil 88%				
Water Capacity US Gal [L] 5 [19] 6.5 [24.5] 7.9 [30] 9.4 [35.5] Water Resistance 27° F [15k] Ft H2O [mbar] 0.08 [0.08] 0.08 [3.2] 0.17 [5.0] 0.35 [10.1] Combustion Chamber Volume Ft ³ [m ³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. "F ["C] 230 [110] Operating temperature range "F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 6	Cast Iron Sections	#	3	4	5	6	
Water Resistance 27° F [15k] Ft H2O [mbar] 0.08 [0.08] 0.08 [3.2] 0.17 [5.0] 0.35 [10.1] Combustion Chamber Volume Ft³ [m³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. 'F ['C] 230 [110] Operating temperature range 'F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 5 6	Flue-way Baffles	#	3	2	2	0	
Combustion Chamber Volume Ft ³ [m³] 0.57 [31] 0.74 [41] 0.92 [51] 1.09 [61] ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. °F [°C] 230 [110] Operating temperature range °F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IIV & Sidewall Boiler Vent Connection Inch 5 5 6	Water Capacity	US Gal [L]	5 [19]	6.5 [24.5]	7.9 [30]	9.4 [35.5]	
ASME MAWP [Water] PSI 60 PSI Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. °F [°C] 230 [110] Operating temperature range °F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 5 6	Water Resistance 27° F [15k]	Ft H2O [mbar]	0.08 [0.08]	0.08 [3.2]	0.17 [5.0]	0.35 [10.1]	
Min. Safety Relief Capacity MBH 80 108 135 155 Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. 'F ['C] 230 [110] Operating temperature range 'F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IIV & Sidewall Boiler Vent Connection Inch 5 5 5 6	Combustion Chamber Volume	Ft ³ [m ³]	0.57 [31]	0.74 [41]	0.92 [51]	1.09 [61]	
Control Panel Electrical V/P/H 120/1/60 Max Allowable Water Temp. "F ["C] 230 [110] Operating temperature range "F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 6	ASME MAWP [Water]	PSI	60 PSI				
Max Allowable Water Temp. 'F ['C] 230 [110] Operating temperature range 'F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 6	Min. Safety Relief Capacity	MBH	80	108	135	155	
Operating temperature range °F 86 - 194 [30 - 90] Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 5 6	Control Panel Electrical	V/P/H	120/1/60				
Chamber Resistance In. w. c. [mbar] 0.06 [0.15] 0.09 [0.22] 0.09 [0.22] 0.09 [0.22] Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 5 6	Max Allowable Water Temp.	°F [°C]	230 [110]				
Gas-Vent Category # I-II-III-IV & Sidewall Boiler Vent Connection Inch 5 5 5 6	Operating temperature range	°F	86 - 194 [30 - 90]				
Boiler Vent Connection Inch 5 5 5 6	Chamber Resistance	In. w. c. [mbar]	0.06 [0.15]	0.09 [0.22]	0.09 [0.22]	0.09 [0.22]	
	Gas-Vent Category	#	I-II-IIV & Sidewall				
Weight [Dry]	Boiler Vent Connection	Inch	5	5	5	6	
	Weight [Dry]	lb [Kg]	302 [137]	357 [162]	412 [187]	470 [213]	

Notes:

- CSA -MBH output based on Thermal Efficiency test according to ANSI ZI.13a/CSA 4.9a-2005
- Approved for direct-vent applications use only approved venting components as listed.
- Natural draft applications, approved for Type L vent [Gas-Oil] or Type B Vent [Gas only]
- All model comply with latest Canadian & USA standards.

Due to ongoing and continuous product improvements, DDR Americas Inc. reserves all rights to amend and delete information provided on this product specification table.

DDR Americas Inc.

Toll Free: (800) 943-6275 www.dedietrichboilers.com

Represented By:

