

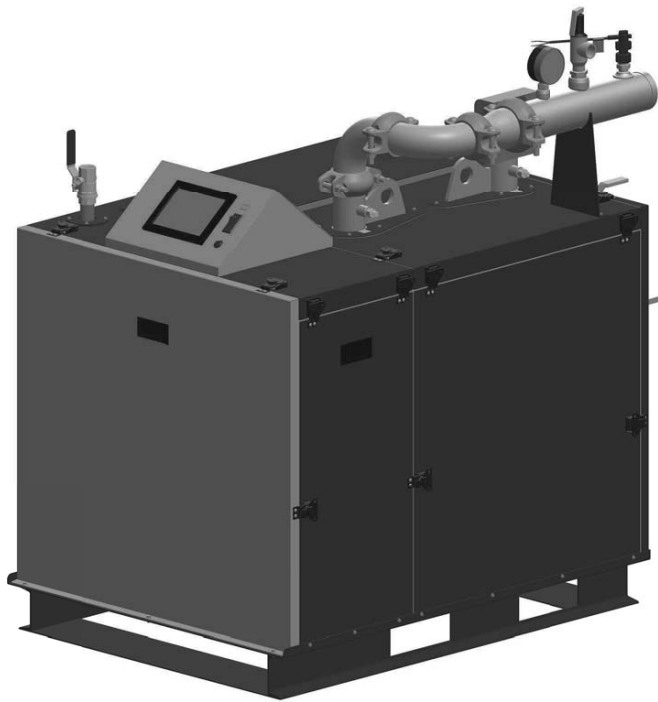
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BRYAN[®] **BOILERS**

Condensing with the Power to FIT



REPAIR PARTS MANUAL



Heating Boiler Models	
BFIT 1000	BFIT 2500
BFIT 1250	BFIT 3000
BFIT 1500	BFIT 3500
BFIT 2000	BFIT 4000

Water Heater/Hot Water Supply Boiler Models	
BFITW 1000	BFITW 2500
BFITW 1250	BFITW 3000
BFITW 1500	BFITW 3500
BFITW 2000	BFITW 4000

NOTICE

The replacement parts noted in this manual are for a standard BFIT series appliance. Different features or components may have been supplied based on the requests of the customer. Consult Thermal Solutions for repair parts on non-standard controls and components.

Repair parts can be ordered through your local Thermal Solutions Representative.

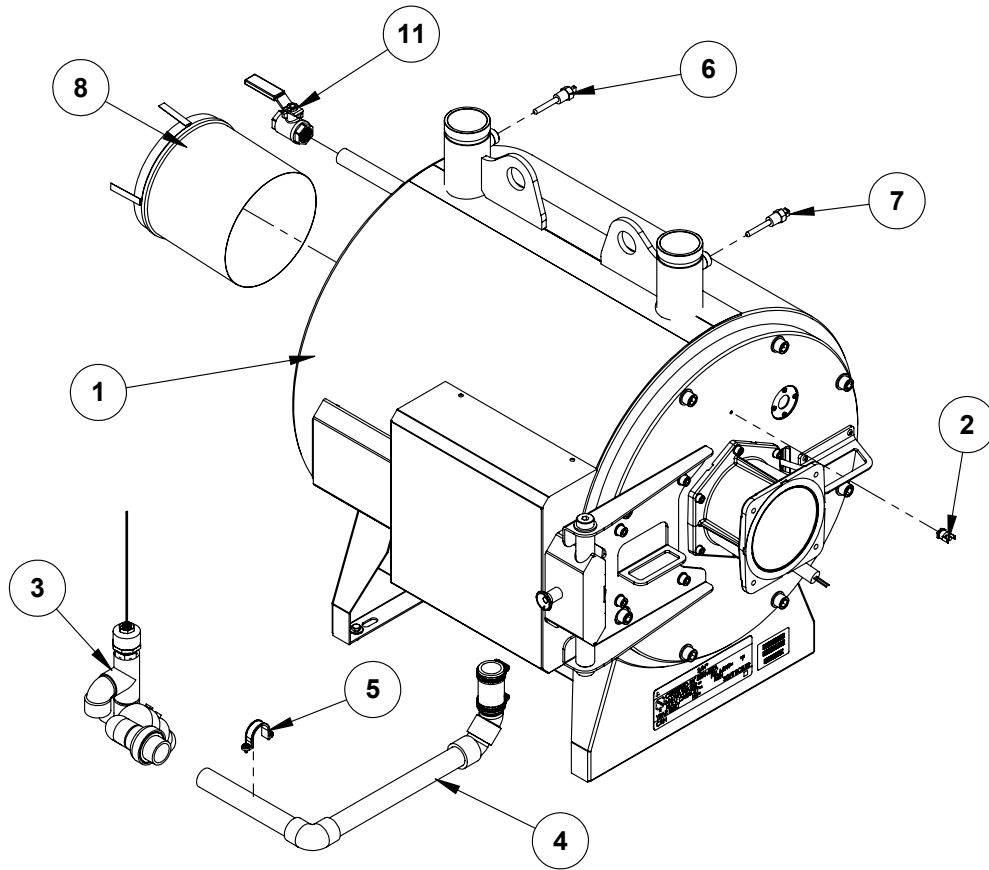


Table 1: BFIT Heat Exchanger Assembly Part Numbers

Item No.	Descriptions	BFIT Model Size								
		1000	1250	1500	2000	2500	3000	3500	4000	
1	Heat Exchanger	108229-01		108229-02	108229-03	108229-04		108229-05		
2	Thermal Fuse	108360-01								
3	Condensate Trap	108266-01								
4	Condensate Drain line	108265-01		108265-02	108265-01	108592-32				
5	Condensate Clamp	108629-01								
6	Inlet Temp. Sensor	108362-01								
7	Outlet Temp. Sensor	108363-01								
8	Vent Adapter	108361-01		108361-02	108361-01	108592-41		108592-40		
9	Stack Temp Sensor	108364-01								
10	Air pres. line connector	109535-01 (Lock Nut, Bras), 822630 (Male Comp.)								
11	Drain Valve	101615-01								
AMPW Part Numbers*										
1	Heat Exchanger	108229-06		108229-07	108229-08	108229-04		108229-05		
11	Drain Valve	101615-02								

* For BFITW parts. Part numbers under BFITW replace the corresponding part numbers above.

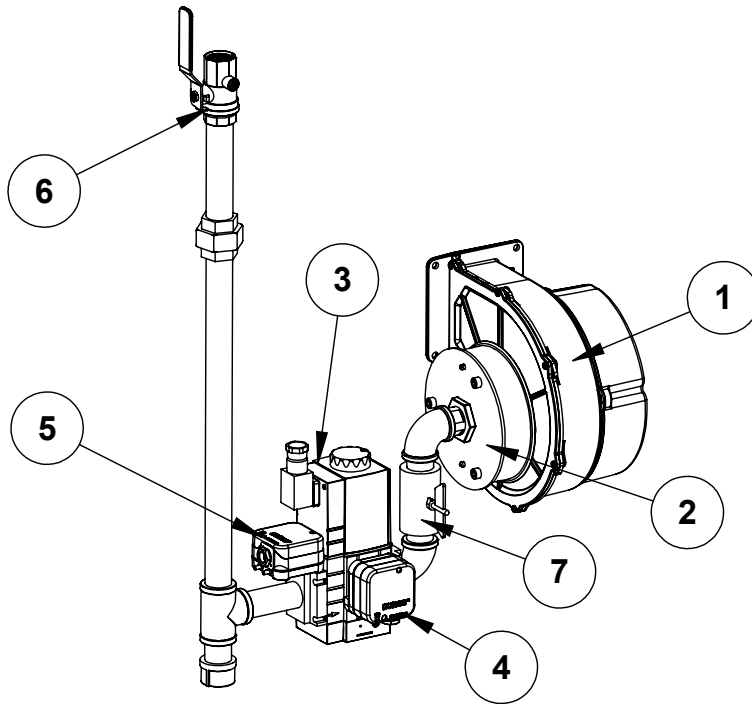


Table 2: BFIT Gas Train Part Numbers

Item No.	Descriptions	BFIT Model Size								
		1000	1250	1500	2000	2500	3000	3500	4000	
1	Combustion Blower, Single Phase	108262-01		120-240V, 1ph: 108262-03			208-240V, 1ph: 108262-02		-	-
	Combustion Blower, Three Phase	-		208-240V, 3ph: 108262-02 380-480V, 3ph: 108262-04						
2	Swirl Plate Kit	105327-01		107475-01	P20271			108592-82		
3	Gas Valve	108299-01		107563-01						
4	High Gas Pres. SW	105328-01								
5	Low Gas Pres. SW	105329-01								
6	Main Shutoff Valve	806603055		806603054		806603053		806604691		
7	Secondary Shutoff	105325-01		105325-01		105325-01		81660726		
*	Air Proving SW Line	9016006								

* Not shown in the drawing

Table 3: BFIT 1500 Dual Gas Part Numbers

Dual Gas BFIT 1500		
3-1	Natural Gas Valve	107563-01
3-2	Propane Gas Valve	108299-01
6-1	Natural Main Shutoff	806603054
6-2	Propane Main Shutoff	806603055

Note:

For sizes other than 1500, the same gas valve and shutoff valve is used for both natural and propane gas trains. Use Table 2.

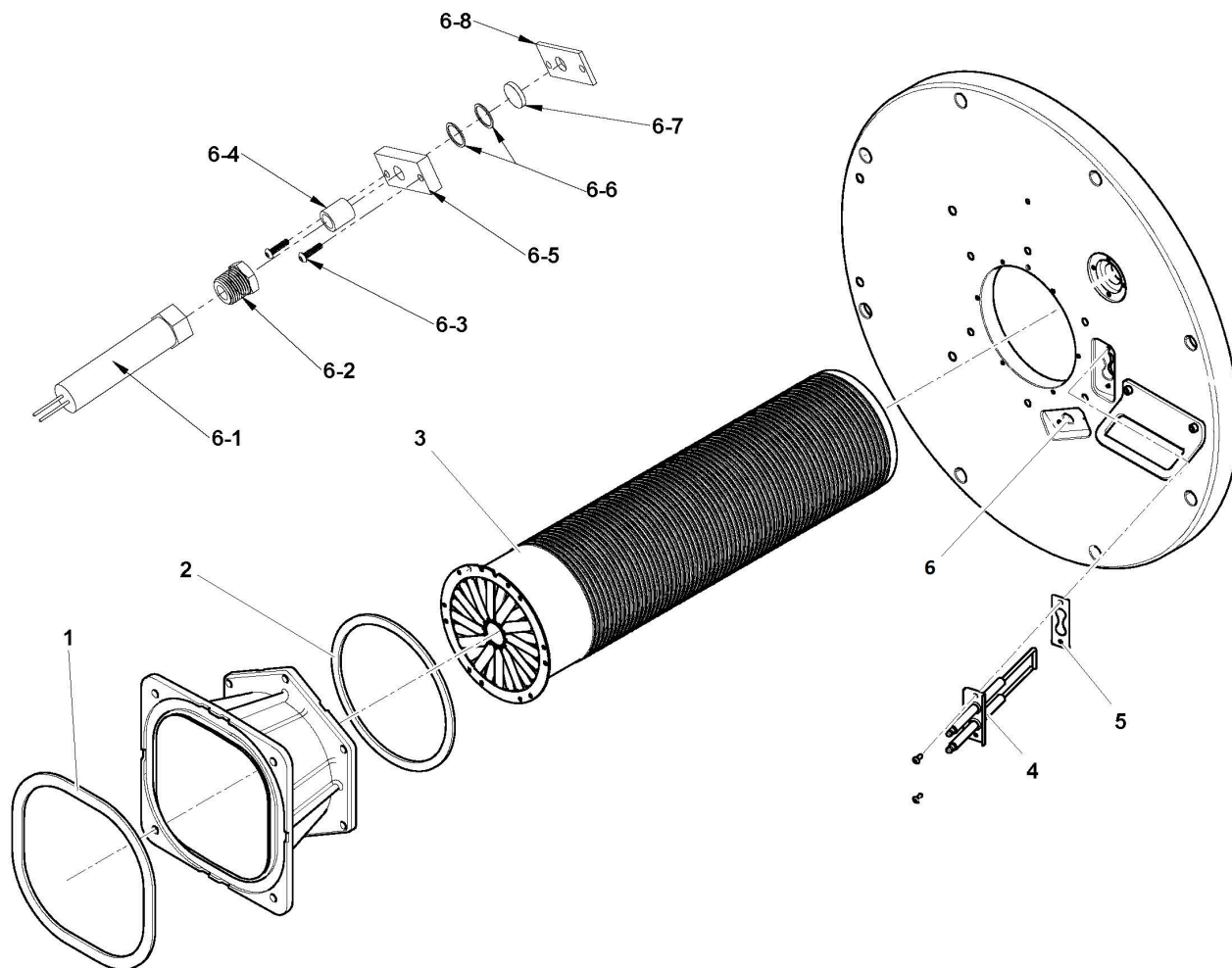


Table 4: BFIT Burner Door Assembly Part Numbers

Item No.	Descriptions	BFIT Model Size							
		1000	1250	1500	2000	2500	3000	3500	4000
1	Fan Gasket	108861-03		108861-04					
2	Burner Gasket	108861-05							
3	Burner	108861-10	108861-11	108861-12	108861-19		108861-20		
4	Ignition Electrode	108861-08							
5	Ignition Gasket	108861-09							
6	UV Scanner Assembly	108630-02							
6-1	UV Scanner	8026145							
6-2	1/2" X 1/4" Bushing	806600524							
6-3	UV Mounting Screws	108507-01							
6-4	1/4" Close Nipple	806600048							
6-5	UV Mounting Plate	108380-01							
6-6	UV Sight Glass Gasket	T20073							
6-7	UV Sight Glass	108309-01							
6-8	UV Mounting Gasket	108241-07							
7*	Observation Port Plate	108861-36							
8*	Observation Port Glass	108861-07							
9*	Observation Port Gasket	108861-35							

* Not labeled in drawing

Table 5: BFIT Electronics and Controls Part Numbers

Item No.	Descriptions	BFIT Model Size							
		1000	1250	1500	2000	2500	3000	3500	4000
1	Main Boiler Control	107478-01							
2	Display	105682-01							
3	On/Off switch	108431-01							
4	Power Supply, 24VDC	105680-01							
5	24 VAC Transformer	111055-01							
6	Line Voltage PCB-01	106164-01							
7	Field Device PCB-02	106165-01							
8	Limits PCB-03	107229-01							
9	Sensors PCB-04	106698-01							
10	EMS PCB-05	106699-01							
11	Comm. PCB-06	106166-01							
12	Ignition Transformer	80160208							
13	Ignition Cable Assy.	105218-02							
14	Air Proving SW	108394-01	108394-02	108394-03	108394-04				
15	Blocked Vent SW	108395-01							
16	Blocked Vent SW Line	92465560							
17	Line Voltage Transformer	80160820 (208-480V only)							

Table 6: BFIT Wire Harness Part Numbers

Item No.	Descriptions	BFIT Boiler Model Size							
		1000	1250	1500	2000	2500	3000	3500	4000
1	Line Voltage, Control Box	108464-05		108464-01					
2	Low Voltage, Control Box	108465-05		108465-01					
3	Lower Control Box	108465-07		-					
4	Line Voltage, Inside Jacket	108464-02							
5	Low Voltage, Inside Jacket	108465-06		108465-02					
6	Supply/Return sensors	108465-04							
7	LWCO and Flow Switch	108464-04							
8	Display, Low Voltage	108465-03							
9	ON/OFF SW, Line Voltage	108464-03							
10	Wire Harness Set	108628-01		108628-02					
Dual Gas BFIT*									
4	Line Voltage, Inside Jacket	108464-06							
-	Gas Selection SW	108464-07							
10	Wire Harness Set	108628-03				108628-04			

* For Dual Gas BFIT parts. Part numbers under Dual Gas section replace the corresponding part numbers above.

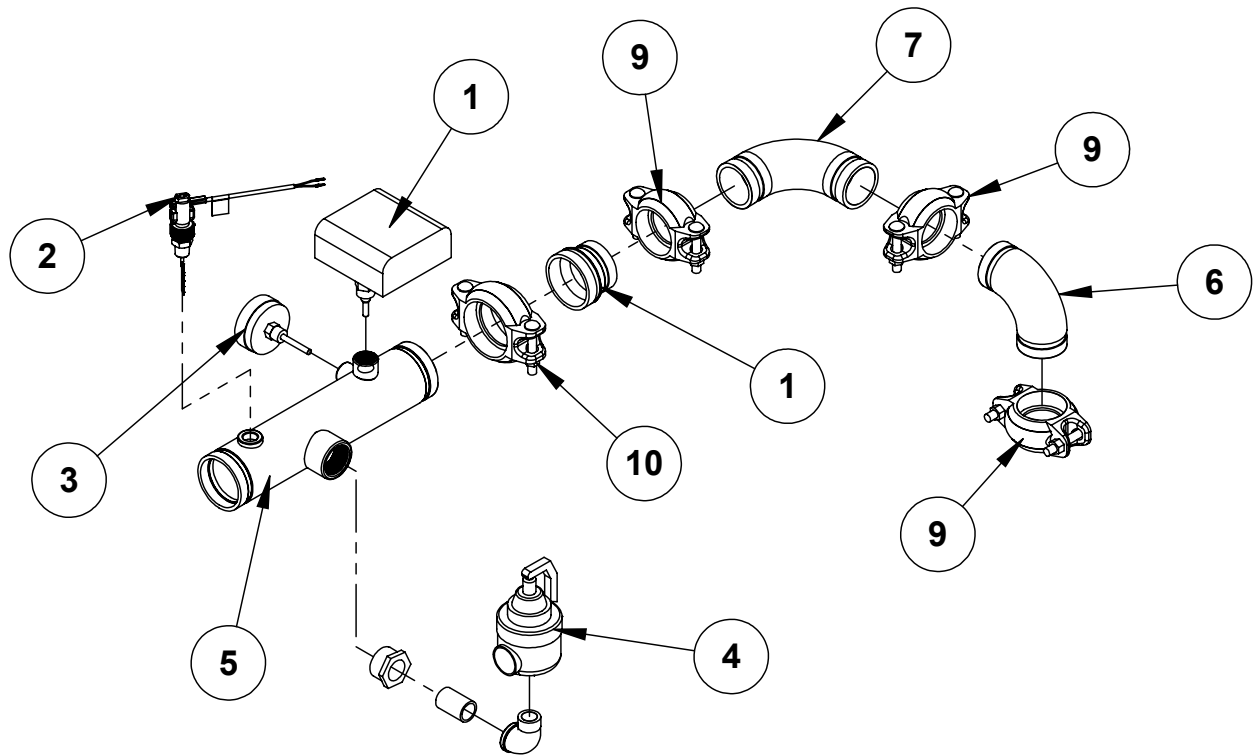


Table 7: BFIT Heating Boiler Outlet Manifold Part Numbers

Item No.	Descriptions	BFIT Boiler Model Size								
		1000	1250	1500	2000	2500	3000	3500	4000	
1	Low Water Cutt-Off (LWCO)	28344.3								
2	Water Flow SW	108396-01 (Includes 1" and 1/2" adapter)								
3	Temp/Pres. Gauge									
	For relief valves of 30, 50, or 60 psi	103470-01								
	For relief valves of 75, 100, or 125 psi	103470-02								
	For 150 psi relief valve	103470-03								
4	Relief Valve									
	30 psi	81660338		81660334			81660335	81660336		
	50 psi	81660359		81660362			81660357			
	60 psi	81660375		81660376			81660379			
	75 psi	81660374			81660389			81660383		
	100 psi	81660377					81660381			
	125 psi	81660378			81660373			81660390		
	150 psi	81660378							81660385	
5	Water Manifold	108374-01					108592-36			
6	Short Radius Elbow	108375-01					104037-01			
7	Long Radius Elbow	108592-45					-			
8	Support Bracket	108592-46					108592-47			
9	Coupling 1	108592-42					104035-01			
10	Coupling 2	104035-02					-			
11	Concentric Reducer	108376-01					-			

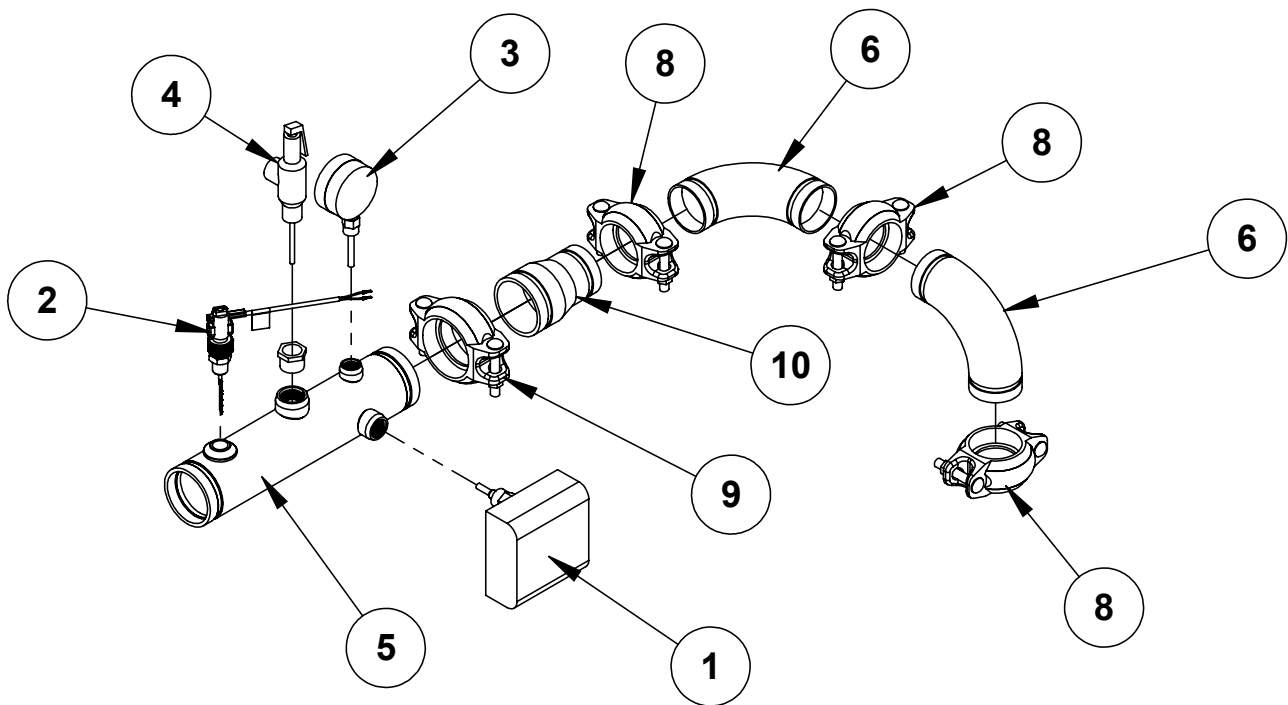


Table 8: BFIT Water Heater Outlet Manifold Part Numbers

Item No.	Descriptions	BFITW Model Size							
		1000	1250	1500	2000	2500	3000	3500	4000
1	Low Water Cutt-Off	28344.3							
2	Water Flow SW	108396-01 (Includes 1" and 1/2" adapter)							
3	Temp/Pres. Gauge	103470-04							
4	Relief Valve	109297-01		109297-02		109297-03		816603992	
5	Water Manifold	108374-02				108374-03			
6	Elbow	109278-01				109278-02			
7	Support Bracket	109282-01				109282-02			
8	Coupling 1	108592-42				104035-01			
9	Coupling 2	104035-02				-			
10	Concentric Reducer	108376-01				-			

BFIT Jacket Panels, Gaskets and Trim Rings

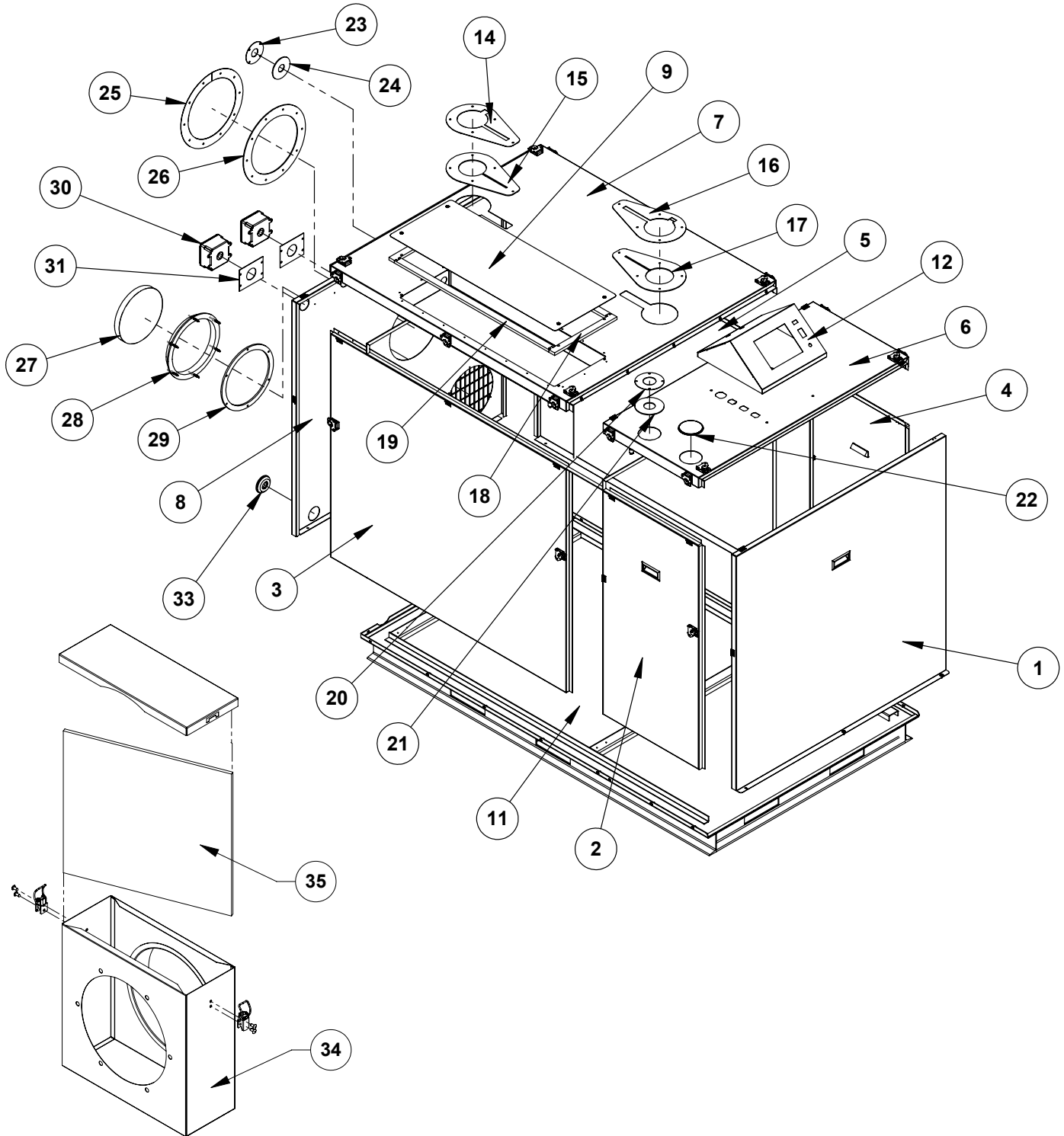


Table 9: BFIT Jacket and Gasket Part Numbers

Item No.	Descriptions	BFIT Boiler Model Size							
		1000	1250	1500	2000	2500	3000	3500	4000
1	Front Jkt. Panel	108254-03				108592-03			
2	Front Left Jkt. Panel	108257-06		108257-05		108592-19		108592-63	
3	Back Left Jkt. Panel	108256-09		108256-07		108592-17		108592-59	
4	Front Right Jkt. Panel	108258-06		108258-05		108592-21		108592-65	
5	Back Right Jkt. Panel	108256-08		108256-07		108592-17		108592-59	
6	Front Top Panel	108252-02		108252-01		108592-11		108592-67	
7	Back Top Panel	108251-01		108251-02		108592-13		108592-61	
8	Back Panel	108250-01				108592-14		108592-69	
9	Control Box Cover	108253-04		108253-03					
10*	Lower Control Box Cover	108253-05		-					
11	Base Assembly	108235-01		108235-02		108235-03		108592-54	
12	Display Box	108259-02							
13**	Latch Assembly	108430-01 (latch), 108430-02 (keeper)							
14	Inlet Trim Plate	108241-01		108241-02		108592-24			
15	Inlet Gasket	108241-04		108241-05		108592-25			
16	Outlet Trim Plate	108241-01				108592-24			
17	Outlet Gasket	108241-04				108592-25			
18	Short Control Box gasket	108592-51							
19	Long Control Box Gasket	108592-43		108592-44					
20	Gas Inlet Trim Plate	108241-16		108241-16		108874-32		108874-24	
21	Gas Inlet Gasket	108241-15		108241-17		108874-33		108874-25	
22	Gas Inlet Plug	108874-59				108874-60			
23	Drain Trim Plate	108241-13				108241-13			
24	Drain Trim Gasket	108241-15		108241-14		108241-15			
25	Stack Trim Ring	108242-01				108592-22		108592-73	
26	Stack Trim Gasket	8205660				108592-23		108592-74	
27	Air Filter	109071-01				108592-39		108592-70	
28	Air Inlet Ring	81156108				81156109		905180	
29	Air Inlet Ring Gasket	82056108				82056109		108592-38	
30	Junction Box	108631-01							
31	Junction Box Gasket	108509-01							
32**	208V+ Junction Box	108267-04							
33	Condensate Grommet	820SOL0002							
34†	Air Box and Lid Assembly	T40353				110056-27		110056-28	
35†	Washable Air Filter	T20215				T20215		110056-38	

* Lower control box used only on 1000 and 1250 models.

**Not shown in drawing

† Items 35 and 34 replaced items 27 and 28.



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