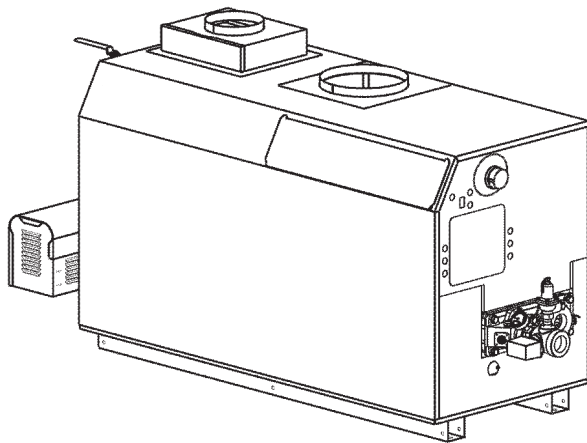


Brute Deluxe

Pump-Mounted Boiler & Water Heater

BMT2H Hydronic Heater
BMT2V Volume Water Heater
Indoor/Outdoor Sizes 500-2000



Date:

Project #:

Engineer:

Prepared By:

Bid Date:



Submittal Data

Project Name:

Location:

Contractor:

Standard Equipment

- ASME 160 psi working pressure heat exchanger
- ASME "H" stamp
- Two-stage firing
- Flanged water connections
- Glass-lined headers
- External header gaskets
- 75 psi (517 kPa) ASME rated pressure relief valve (BMT2H)
- 125 psi (861 kPa) ASME rated pressure relief valve (BMT2V)
- Flow switch
- Temperature pressure gauge
- Pump, mounted and wired
- Multiple operating gas valve/pressure regulators
- Manual "A" gas valve
- Intake air filter
- Multiple, removable burner trays
- Stainless steel burners
- Built-in draft fan for Category I or III vent systems
- Air pressure switch
- Burner site glass
- 24V control system
- 115/24VAC transformer
- Manual reset high limit
- External controller connections with selector switch
- Hot surface ignition
- On/Off toggle switch
- Pump time delay
- Less than 10 ppm NOx

Boiler Data

Model:

- ☐ Boiler BMT2H
☐ Water Heater BMT2V

Number of Units:

Fuel

- ☐ Natural
☐ Propane

Heat Exchanger

- ☐ Copper
☐ Cupro-Nickel
☐ Copper, Reversed
☐ Cupro-Nickel, Reversed

Water Trim

- ☐ Glass-Lined Cast Iron
☐ Bronze Trim (std. on BMT2)

Pump

- ☐ Normal Water, Taco
☐ Normal Water, Xylem
☐ Hard Water, Taco (BMT2V only)
☐ Hard Water, Xylem (BMT2V only)
☐ Soft Water, Taco (BMT2V only)
☐ Soft Water, Xylem (BMT2V only)

Options

- ☐ CSD-1
☐ 200°F Max Controls (std. on BMT2V)
☐ Low Water Cutoff
☐ Auto reset high limit
☐ Ignition failure alarm with bell and dry contacts, red trouble and green main gas lights
☐ ASME "HLW" Stamp (BMT2V only)
☐ Reversed heat exchanger



Sizing Data

	Size	Input ^{1,3} BTU/h	Output ^{1,3} BTU/h	Gas Conn. Size inches ²	Water Conn. Size inches ²	Shipping Weight lbs. kg	
	500	500,000	425,000	1¼	2	425	193
	750	750,000	638,000	1¼	2	505	229
	1000	999,000	849,000	1½	2½	615	279
	1250	1,250,000	1,064,000	2	2½	675	306
	1500	1,500,000	1,277,000	2	2½	760	345
	1750	1,750,000	1,489,000	2	2½	825	375
	MT2H 2000	1,999,000	1,701,000	2	2½	955	434
	MT2V 2000	2,000,000	1,701,000	2	2½	955	434

- NOTES:**
1. Input and output must be derated 4% per 1000 feet above sea level when installed above 2000 feet altitude.
 2. Dimensions are nominal.
 3. For other boiler ratings:
Boiler Horsepower: $HP = \frac{\text{Output}}{33,475}$ Radiation Surface: $EDR \text{ sq. ft.} = \frac{\text{Output}}{150}$

Accessories

-  Side-wall vent terminal for indoor unit with horizontal venting
-  Vent terminal for outdoor unit
-  Air terminal for outdoor unit
-  Side-wall combustion air terminal for indoor unit with horizontal ducted air
-  Propane conversion kit
-  Natural gas conversion kit

Water Flow Data

BMT2H (Boiler)

Temperature Rise in Degrees

Size	20°F	11°C	25°F	14°C	30°F	17°C	35°F	19°C
	Flow gpm	Flow lpm	Flow gpm	Flow lpm	Flow gpm	Flow lpm	Flow gpm	Flow lpm
500	43	161	34	129	28	107	24	92
750	64	242	51	193	43	161	36	138
1000	85	321	68	257	57	214	49	184
1250	106	402	85	322	71	268	61	230
1500	128	483	102	386	85	322	73	276
1750	N/R	N/R	119	451	99	375	85	322
2000	N/R	N/R	136	515	113	429	97	368

BMT2V (Water Heater)

Size	Hard Water		Normal Water		Soft Water	
	Flow gpm	Flow lps	Flow gpm	Flow lps	Flow gpm	Flow lps
500	90	341	68	257	45	170
750	90	341	68	257	45	170
1000	90	341	68	257	45	170
1250	90	341	68	257	68	257
1500	90	341	68	257	68	257
1750	90	341	68	257	68	257
2000	112	424	112	424	112	424

NOTE: Headloss (H/L) shown is for the heat exchanger only.

Recovery Data

Size	WATER TEMPERATURE RISE IN DEGREES								
	40°F gph	50°F gph	60°F gph	70°F gph	80°F gph	90°F gph	100°F gph	120°F gph	140°F gph
500	1276	1020	850	729	638	567	510	425	364
750	1915	1532	1277	1094	957	851	766	638	547
1000	2548	2038	1699	1456	1274	1132	1019	849	728
1250	3189	2551	2126	1822	1594	1417	1276	1063	911
1500	3827	3061	2551	2187	1913	1701	1531	1276	1093
1750	4464	3571	2976	2551	2232	1984	1786	1488	1276
2000	5099	4079	3399	2914	2550	2266	2040	1700	1457
Size	22°C L/h	28°C L/h	33°C L/h	39°C L/h	44°C L/h	50°C L/h	56°C L/h	67°C L/h	78°C L/h
500	4821	3857	3214	2755	2411	2143	1929	1607	1378
750	7238	5790	4825	4136	3619	3217	2895	2413	2068
1000	9632	7705	6421	5504	4816	4281	3853	3211	2752
1250	12054	9643	8036	6888	6027	5357	4821	4018	3444
1500	14464	11571	9643	8265	7232	6429	5786	4821	4133
1750	16875	13500	11250	9643	8438	7500	6750	5625	4821
2000	19274	15419	12850	11014	9637	8566	7710	6425	5507

NOTE: gph = gallons per hour, L/h = Liters per hour.

Electrical Data

BMT2H, BMT2V (pump mounted)	Boiler / Heater Circuit Size			Pump Circuit Size			Blower Circuit
Size	Volts	Phase	Amps	Volts	Phase	Amps	
500-750	120	Single	15	120	Single	15	Included in Boiler Circuit
1000-1750			20			15	
2000			20			20	

Pump Data

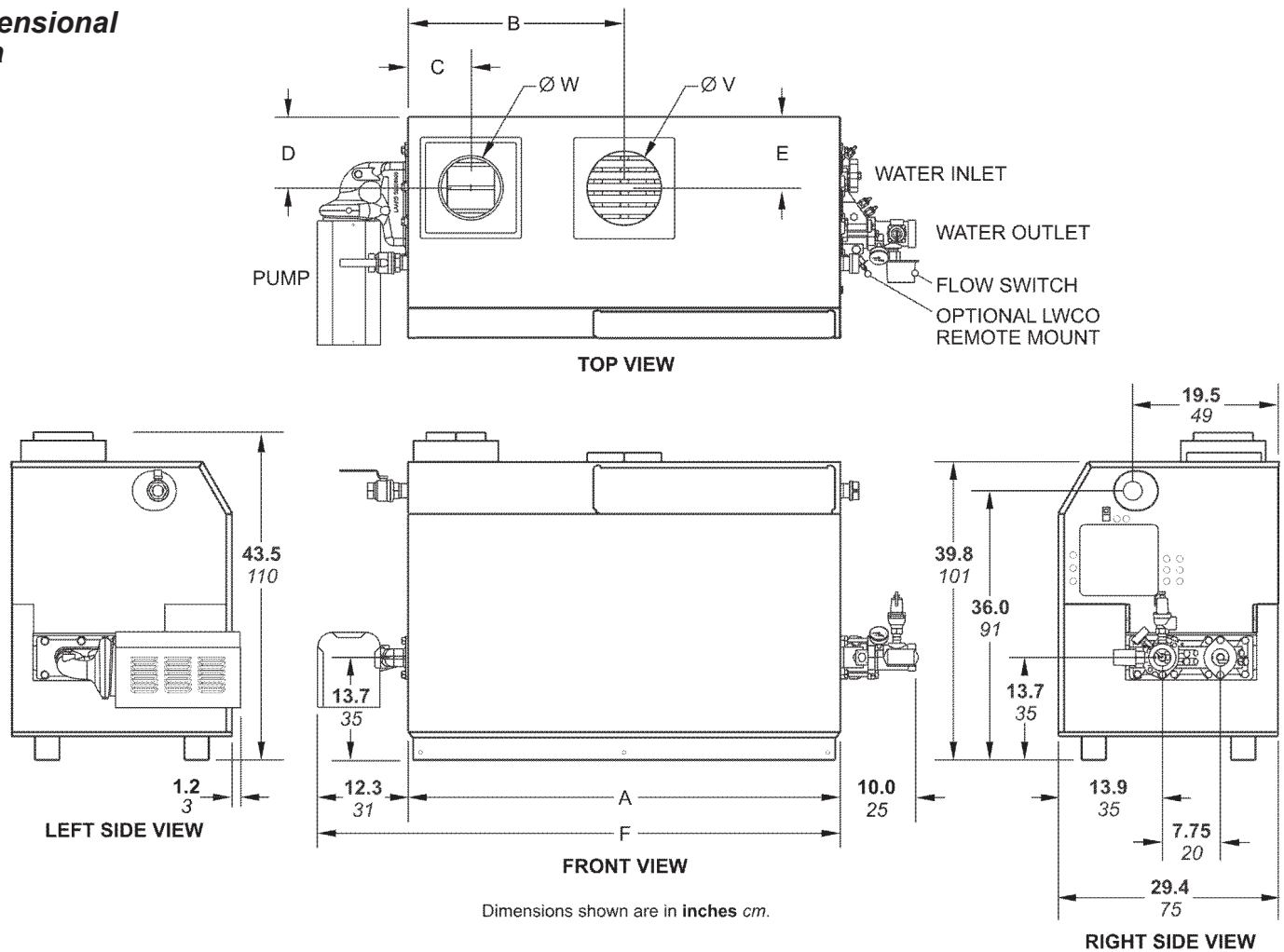
BMT2V Water Heaters							BMT2H Boilers		
Size	Water Category						Size	HP Amps	
	SOFT		NORMAL		HARD				
	HP	Amps	HP	Amps	HP	Amps		HP	Amps
500	1/3	2.8	1/3	2.8	3/4	7.2	500	1/3	2.8
750	1/3	2.8	1/3	2.8	3/4	7.2	750	1/3	2.8
1000	1/3	2.8	1/2	5.2	3/4	7.2	1000	1/2	5.2
1250	1/3	2.8	1/2	5.2	3/4	7.2	1250	1/2	5.2
1500	1/3	2.8	3/4	7.2	3/4	7.2	1500	3/4	7.2
1750	3/4	7.2	3/4	7.2	3/4	7.2	1750	3/4	7.2
2000	1	9.8	1	9.8	1	9.8	2000	1	9.8

Clearances

Appliance Surface	Required Clearance From Combustible Material	Suggested Service Access Clearances
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Dimensions in **inches** *cm*

Dimensional Data



Size	A		B		C		D		E		F		Air Conn. W	Vent Conn. V		
500	33¾	86	16¾	43	6½	17	10	25	8	20	46¼	117	6	15	8	20
750	45¾	116	22¾	58	6½	17	10	25	9½	24	58¼	148	8	20	10	25
1000	57¾	147	28¾	73	6½	17	10	25	9½	24	70¼	178	8	20	10	25
1250	68¼	173	34¼	87	10¼	26	10	25	9	23	80¾	205	12	30	12	30
1500	78¾	200	39½	100	10¼	26	10	25	9	23	91¼	232	12	30	12	30
1750	89¼	227	44¾	113	10¼	26	10	25	9	23	101¾	258	12	30	14	36
2000	99¾	253	49¾	127	10¼	26	10	25	9	23	112¼	285	12	30	14	36

Dimensions shown in inches cm.

Bradford White reserves the right to change specifications, components, features, or to discontinue products without notice.



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 Warranty: (800) 531-2111

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