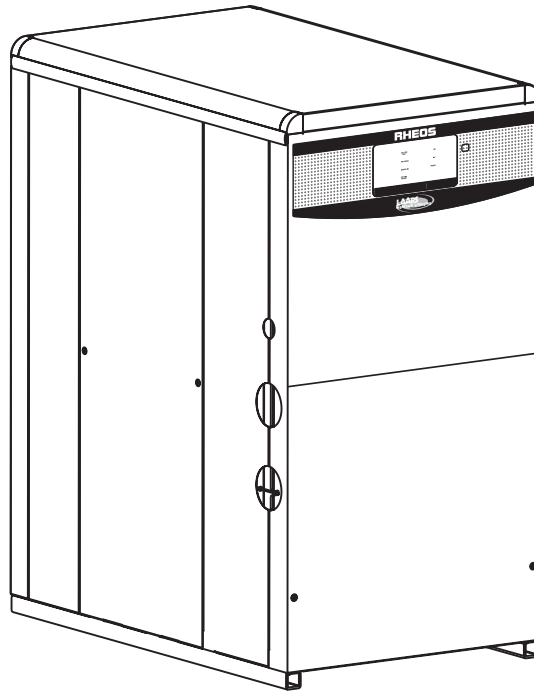


RHEOS®

Pump-Mounted Boiler and Water Heater

RHCH	Hydronic Boiler
RHCV	Volume Water Heater

Submittal Data


Specifications

Model (Size)	1200		1600		2000		2400	
Input, High Fire	1,200,000 BTU/h	352 kW	1,600,000 BTU/h	469 kW	2,000,000 BTU/h	586 kW	2,400,000 BTU/h	703 kW
Output, High Fire	1,044,000 BTU/h	306 kW	1,392,000 BTU/h	408 kW	1,740,000 BTU/h	510 kW	2,088,000 BTU/h	612 kW
Input, Low Fire	600,000 BTU/h	176 kW	800,000 BTU/h	234 kW	1,000,000 BTU/h	293 kW	1,200,000 BTU/h	352 kW
Output, Low Fire	522,000 BTU/h	153 kW	696,000 BTU/h	204 kW	870,000 BTU/h	255 kW	1,044,000 BTU/h	306 kW
Vent Size (Cat. IV)	6"	15 cm	6"	15 cm	7"	18 cm	10"	25 cm
Combustion Air Size	6"	15 cm	8"	20 cm	8"	20 cm	8"	20 cm
Electrical Requirements - Rheos	120V / single phase / 20A		120V / single phase / 20A		120V / single phase / 20A		120V / single phase / 20A	
Electrical Requirements - Pump	120V / single phase / 28A		120V / single phase / 28A		120V / single phase / 28A		120V / single phase / 28A	
Shipping Weight	1370 lbs.	622 kg	1415 lbs	642 kg	1445 lbs.	656 kg	1500 lbs	681 kg

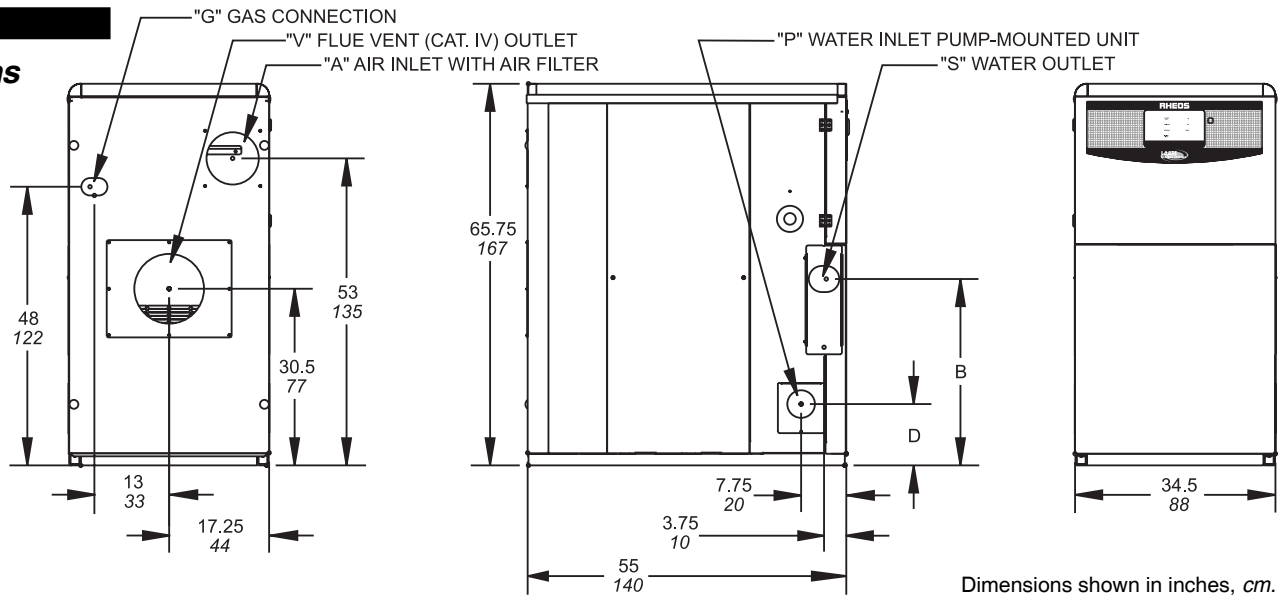
Standard Equipment

- Water flow switch
- Low water cutoff with test light and manual reset button
- Manual reset high limit
- ASME CSD-1
- Manual firing valve
- Leak test valve
- High gas pressure switch
- Low gas pressure switch
- Air pressure switch
- ASME 160 lb. w.p. heat exchanger
- Less than 10ppm NOx
- Modulation capabilities down to 50% of full fire
- Mounted pump
- Pump time delay (adjustable 0.1 to 10 min.)
- Low-fire start time delay
- 75 psi pressure relief valve (RHCH)
- 125 psi pressure relief valve (RHCV)
- Temperature and pressure gauge
- Indicator/status lights for: Power On, Call for Heat; Pre-Purge; Burner On; Ignition Failure
- Selector switch for internal or external (0-10VDC) control
- 87% Efficiency

Clearances

Appliance Surface	Clearance From Combustible Material	Suggested Service Clearance
Piping Side	1" 2.5 cm	18" 46 cm
Opposite Side	1" 2.5 cm	1" 2.5 cm
Top	1" 2.5 cm	24" 61 cm
Back	1" 2.5 cm	36" 91 cm
Front	1" 2.5 cm	36" 91 cm
Vent	Per UL1738 venting system supplier's instructions	

Dimensions



Model	V Vent Connection		A Air Inlet Connection		P Inlet Water Conn.	S Outlet Water Conn.	B		D		G - Gas Connections		
											Std&Control Packs A,C,D,F,G	Control Packs B&E	Control Packs B&E
											Nat / LP	Nat	LP
	in.	cm	in.	cm	NPT	NPT	in.	cm	in.	cm	NPT	NPT	NPT
1200	6	15	6	15	2-1/2"	2-1/2"	34-1/4	87	9-3/4	25	1"	1-1/2"	1-1/2"
1600	6	15	8	20	3"	2-1/2"	34-1/4	87	10-1/2	27	1-1/2"	2"	2"
2000	7	18	8	20	2-1/2"	3"	34-1/4	87	9-3/4	25	1-1/2"	2"	1"
2400	10	25	8	20	3"	3"	32	81	10-1/2	27	1-1/2"	2"	2"

RHCH (Boiler)

Water Flow Data

Model Size	Temperature Rise in Degrees											
	20°F		11°C		25°F		14°C		30°F		17°C	
	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	
	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
1200	104	394	84	318	70	265						
1600	139	527	111	422	93	351						
2000	174	659	139	527	116	439						
2400	209	790	167	632	139	527						

RHCV (Water Heater)

Model Size	Hard Water				Normal Water				Soft Water			
	Flow gpm	Temp Rise °F	Flow lpm	Temp Rise °C	Flow gpm	Temp Rise °F	Flow lpm	Temp Rise °C	Flow gpm	Temp Rise °F	Flow lpm	Temp Rise °C
1200	104	20	395	11	84	25	316	14	70	30	264	17
1600	164	17	620	9	133	21	502	12	90	31	340	17
2000	183	19	693	11	151	23	573	13	99	35	376	19
2400	209	20	791	11	167	25	632	14	139	30	527	17

NOTE: Soft water: 1 to 7.5 grains per gallon. Normal water: 7.6 to 17 grains per gallon. Hard water: More than 17 grains per gallon.

Recovery Table

Model Size	GPH L/h Delivered																	
	REQUIRED WATER TEMPERATURE RISE °F / °C																	
	40°F	22°C	50°F	28°C	60°F	33°C	70°F	39°C	80°F	44°C	90°F	50°C	100°F	56°C	120°F	67°C	140°F	78°C
	GPH	L/h	GPH	L/h	GPH	L/h	GPH	L/h	GPH	L/h	GPH	L/h	GPH	L/h	GPH	L/h	GPH	L/h
1200	3133	11843	2507	9476	2089	7896	1790	6766	1567	5923	1393	5266	1253	4736	1044	3946	895	3383
1600	4178	15793	3342	12633	2785	10527	2387	9023	2089	7896	1857	7019	1671	6316	1393	5266	1194	4513
2000	5222	19739	4178	15793	3481	13158	2984	11280	2611	9870	2321	8773	2089	7896	1741	6581	1492	5640
2400	6267	23689	5013	18949	4178	15793	3581	13536	3133	11843	2785	10527	2507	9476	2089	7896	1790	6766



Waterpik Technologies

6000 Conдор Drive, Moorpark, CA 93021 • 805.529.2000 • FAX 805.529.5934

20 Industrial Way, Rochester, NH 03867 • 603.335.6300 • FAX 603.335.3355

480 S. Service Road West, Oakville, Ontario, Canada L6K 2H4 • 905.844.8233 • FAX 905.844.2635

www.laars.com

Litho in U.S.A. © Laars Heating Systems 0410 Document 11800