

MYDENS T boiler submittal

- Condensing, gas fired modular boiler brand COSMOGAS model MYDENS T WXN _____.
- AISI 316 Ti stainless steel water tube heat exchanger. Tubes are connected to the headers without the use of any welding process.
- Maximum allowing working water pressure: 160 psi.
- ASME section IV, H compliant, ANSI Z21.13 (gas boilers).
- Adjustment, rotation and cascade control of the several heat exchangers (modules).

MYdens T Model		199T	250T	399T	500T	750T	1000T
Category of flue venting		IV	IV	IV	IV	IV	IV
Min/Max heat input	MBtu/hr	50/199,5	50/250	50/399	50/500	50/750	50/999
Turndown ratio		4:1	5:1	8:1	10:1	15:1	20:1
Number of Modules		1	1	2	2	3	4
Gas flow rate (Nat. gas)/(LP gas)	ft3/hr	199.5/80	250/100	399/160	500/200	750/300	999/400
Min/Max gas pressure (Nat. and LP)	In.W.C.	3/13	3/13	3/13	3/13	3/13	3/13
Min/Max water temperature	°F	68/180	68/180	68/180	68/180	68/180	68/180
Min/Max water pressure	PSI	8/160	8/160	8/160	8/160	8/160	8/160
Content of water	gal	1.7	2	3.4	4	7	9
Supply voltage/Frequency		120Vac/60Hz	120Vac/60Hz	120Vac/60Hz	120Vac/60Hz	120Vac/60Hz	120Vac/60Hz
Absorbed electric power (FLI) / Current (FLA)	W / A	110 / 1	150 / 1,3	220 / 1,8	300 / 2,5	430 / 3,6	591 / 5
Max. length venting system	ft	120	120	120	120	120	120
Appliance weight (empty of water)	lb	211	216	312	323	464	548
Dimensions: H x W x D	Inch	45.7" x 23.6" x 34.8"	45.7" x 23.6" x 34.8"	45.7" x 23.6" x 34.8"	45.7" x 23.6" x 34.8"	71.4" x 23.6" x 35.3"	71.4" x 23.6" x 35.3"
Thermal Efficiency up to		97%	97%	97%	97%	97%	97%

- Direct vent.
- Patented Air / gas mixer.
- Fully modulating premix burner made in metal fiber.
- Natural gas or LP gas working.
- Natural gas to LP gas conversion kit.
- Fully modulating fan and PID control of the supply temperature.
- Fully modulating negative pressure gas valve.
- UL 353 listed water temperature control and high limit switch.
- 68 to 180°F water supply temperature adjustment.
- Antifrost protection system.
- Condensate drain anti flue gas leakage integrated system.
- Integrated water pressure sensor to show the value on the display.
- High limit flue gas pressure switch.
- Integrated vortex type full pass water flow meter per each heat exchanger.
- Integrated draining valves.
- Main two poles ON/OFF electrical switch.
- Electric protection degree: IP 21.
- Domestic hot water sensor to be placed on the storage tank.
- Display per each module of: water flow, outlet water temperature, inlet water temperature, flue gas temperature, self-diagnosis of all electrical components.
- Display of the storage water temperature.
- Integrated condensate neutralization kit filled with neutralizing media.
- Each heater module shall have an ASME approved pressure relief valve setting of 50 PSI and a Temperature-Pressure gauge.
- Each heater module is connected to a common integrated gas train terminating on the rear side of the heater; a common air intake, flue gas venting terminating on the top of the unit and a common water inlet and outlet header terminating on the rear of the heater.
- Modbus connection for third party BMS (Building Management System) to control and monitor the heater.
- Heater can be controlled via 0-10Vcc input or ON-OFF input.
- Air intake and Venting system can be connected to UL listed PVC, or CPVC Positive Pressure venting materials.
- Back-lightening display.

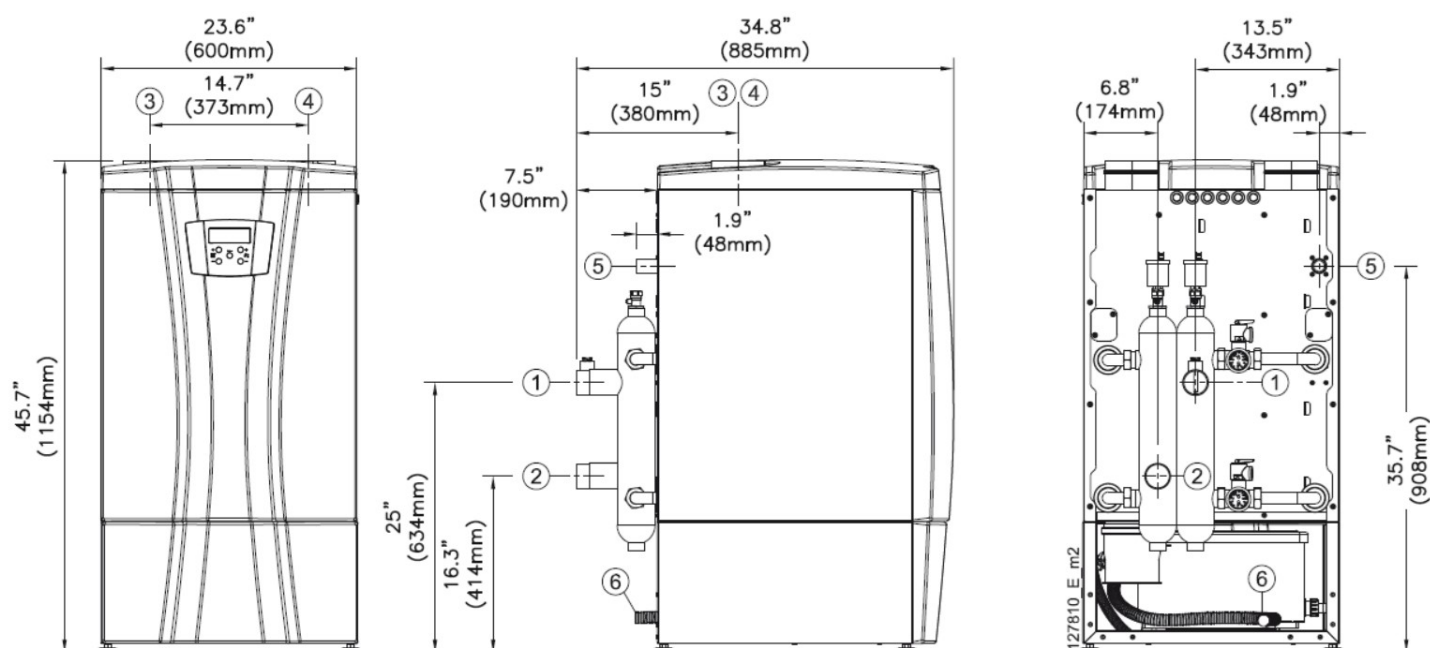
Note:

The proper mixture of water, chemical treatment, and glycol (if used) should be ascertained based on a sample of the system water and the makeup water. Your local water treatment company, may analyze your sample. Adjust the chemical composition of your system water based on the analysis.

Quality of the water into the heating system	
Hardness range	50 to 150 ppm
Chlorides	< 50 ppm
Conductivity	< 1500 uS
Ph	6,5 – 8,5
Iron	< 0,5 ppm
Turbidity	Clean

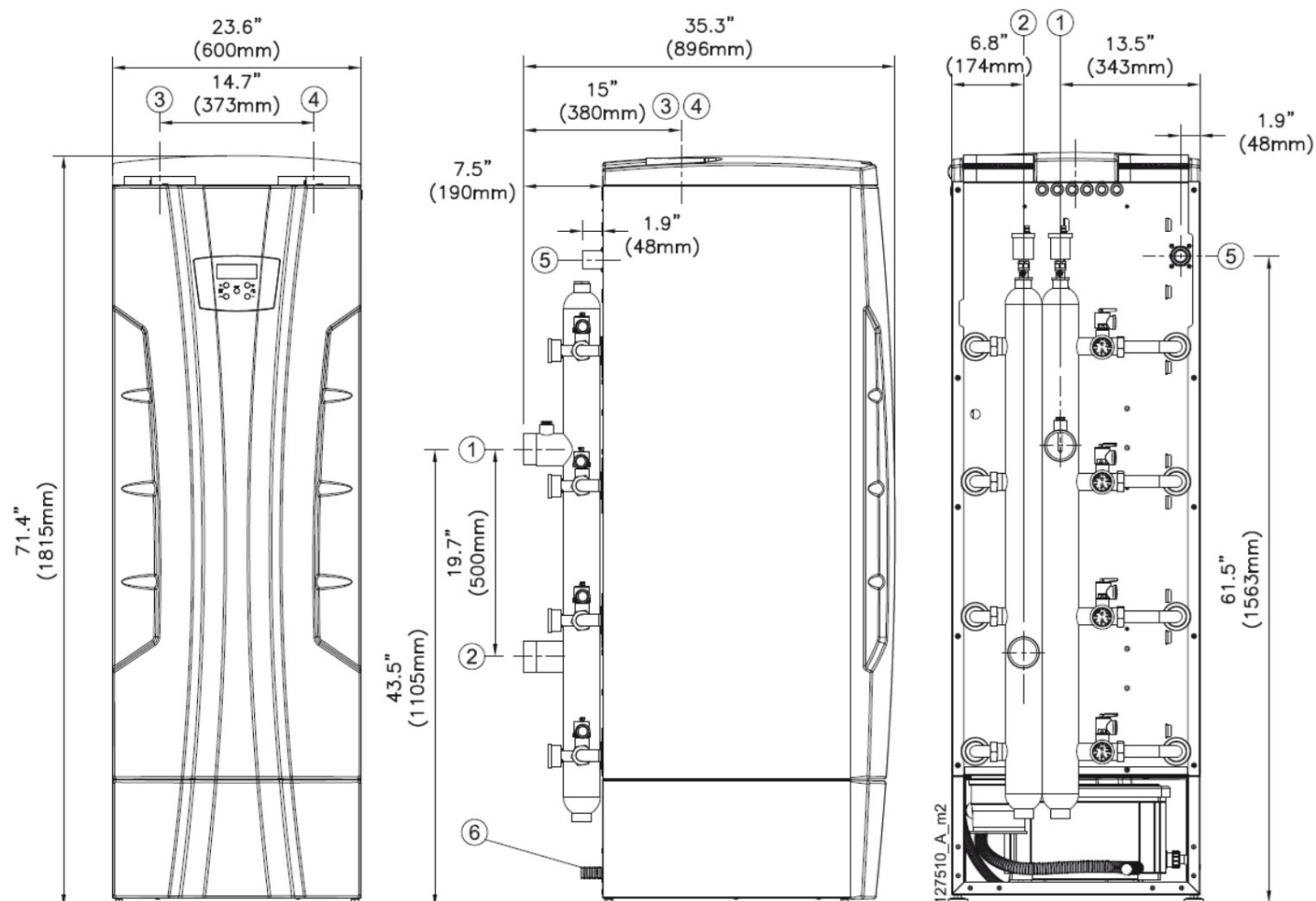
CAUTION!!! Values out of these ranges can generate limescale build-up or corrosions causing fatal damage to the unit.

DIMENSIONS AND CONNECTIONS FOR MODELS 199, 250, 399 and 500:



MYdens T Model	WATER SUPPLY CONNECTION (1)	WATER RETURN CONNECTION (2)	AIR INTAKE CONNECTION (3)	FLUE EXHAUST CONNECTION (4)	GAS CONNECTION (5)	CONDENSATE DRAIN (6)
199T	2" NPT	2" NPT	3"	3"	1" NPT	1" 1/4
250T	2" NPT	2" NPT	3"	3"	1" NPT	1" 1/4
399T	2" NPT	2" NPT	4"	4"	1" NPT	1" 1/4
500T	2" NPT	2" NPT	4"	4"	1" NPT	1" 1/4

DIMENSIONS AND CONNECTIONS FORM MODELS 750 AND 1000:



MYdens T Model	WATER SUPPLY CONNECTION (1)	WATER RETURN CONNECTION (2)	AIR INTAKE CONNECTION (3)	FLUE EXHAUST CONNECTION (4)	GAS CONNECTION (5)	CONDENSATE DRAIN (6)
750T	2" 1/2 NPT	2" 1/2 NPT	6"	6"	1" 1/4 NPT	1" 1/4
1000T	2" 1/2 NPT	2" 1/2 NPT	6"	6"	1" 1/4 NPT	1" 1/4

On demand:

- Motorized two way valves to stop the water flow on non working modules (version "WXW").
- BACNET, KNX or LONWORK protocols for connection with third party BMS (Building Management System).
- Stainless steel AL-29-4C or Polypropylene air intake or venting adaptors.