











Description/Application

Designed specifically for heavy-duty commercial applications. Fully modulating, gas-fired, tankless, on-demand water heater with sealed combustion (optional) and power-vented flue. Can be installed either indoors or outdoors.

Supplies hot water to: domestic hot water systems (directly or indirectly using water storage tanks), recirculations systems, hydronic heating systems, radiant floor heating systems, and/or combined domestic & heating applications, etc. Local codes indictate proper compliance. Please check with all local codes prior to installation.

Fuel: NG or LP

Safety Features

- Built in Freeze Protection
- Manual Reset Hi Limit (Set at 194°F)
- Overheat Cut Off Fuse
- Inlet, Outlet & Thermistors for Constant Temperature Monitoring
- Air-Fuel Ratio Rod
- GFI, Fuse & Surge Absorber
- Flame Sensor

Venting and Combustion

- 5" Category III Stainless Steel
- Vertical or Horizontal Installation
- 50' Max Length, 5 elbows max
 (90° elbows = 5' equivalent length)
- Power Vent
- Electronic Ignition
- 5" Combustion Air Intake (with optional kit)
- 56 dB Noise Level at Max Output

Accessories

TM-MC01 Multi-Unit Controller (Multi-Unit System)
TM-RE30 Temperature Remote Control (optional)

- 400' Max Distance From Water Heater

Non-Polarized 18 Gauge Control Wiring

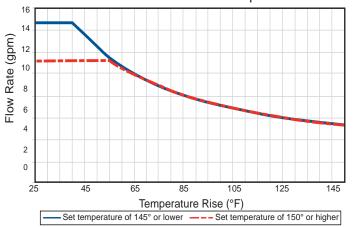
TM-DV50 Direct Vent Conversion Kit (optional)

TM-PC50 Pipe Cover (optional)

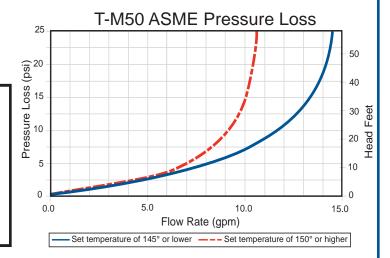
TM-VC50 Vent Cap (optional)

TM-BF50 Backflow Preventer (optional)

T-M50 ASME Flow Rate Vs. Temperature Rise



Above shown rate is based on single unit only



Temperature Settings Dip Switch: 100°F 115°F 120°F (default) 135°F 145°F 155°F 165°F 185°F **TM-RE30 Remote Controller** Default Mode: 100°F 105°F 110°F 115°F 120°F (default) 125°F 130° 135°F 140°F 145°F 150°F 155°F 160°F 165°F 170°F 175°F High Temp Mode: 110°F 115°F 120°F (default) 125°F 130°F 135°F 140°F 145°F 150°F 155°F 160°F 165°F 170°F 175°F 180°F 185°F

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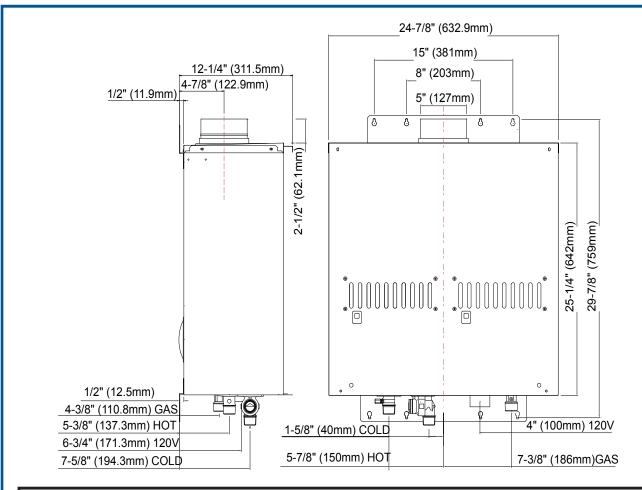












T-M50	O ASME:								(Hot/Cold/Gas)	
	HT 25.3"	W 24.8"	D 11.8"	WT 112 lbs.	Volt 120	Amp 1.48	Flue 5" O.D.*	Intake 5" O.D. (opt.)	Connections 1" NPT	
NG LP			Input Min BTU/h 15,000 15,000		Energy Factor 0.81 0.83		Thermal Eff. 80.2% 82.4%	AFUE 0.79 0.76	Min Press 5.0" W.C. 8.0" W.C.	Max. Press 10.5" W.C. 14.0" W.C.
	GPM 0.5 - 14.5**		Water PSI 15 - 150 PSI***		Coil Cap ≈0.32 Gallons					
	Clearances		Тор		Bottom		Front	Back	Sides	
Indoor Outdoor			12" 36"		12" 12"		24" 24"	0.5" 0.5"	2" 2"	

^{*} Category III Required **Current numbers based on factory testing, 0.4 GPM Required for Continuous Fire After initial Ignition.

Warranty: 10 years Heat Exchanger, 5 years Parts (for Residential Use) - 3 years Heat Exchanger, 3 years Parts (for Commercial Use)

Specification

Mobius water heater(s) shall be Model T-M50 ASME as manufactured by Takagi Industrial Company, Inc. The Mobius water heater(s) shall be a copper coil integral fin and tube construction with quick release brass or bronze waterways. Heater(s) will be factory assembled and tested.

The heater shall be vented with 5" Stainless steel Category III vent pipe a distance not to exceed 50' (equivalent) feet terminating vertically or horizontially as prescribed. Intake air with optional direct vent kit may be of such material as PVC not to exceed a total of 50' (equivalent).

The heater(s) shall be controlled by onboard solid state printed circuit board monitoring incoming and outgoing temperatures with factory installed thermistors, sensing and controlling flow rate to set point temperature with control both air and gas mixture inputs to maintain thermal combustion efficiency. Unit also consists of ground fault interrupter, inline fusing, spark ignition and sensor system, aluminized stainless steel burners, air-fuel ration rod, Hi limit switch, modulating and proportional gas valves, freeze protection sensor and heating block and overhead cut-off fuses.

^{***}Pressure Only Relief Valve Requires (Min. 380,000 BTUs. 150 PSI). Min 40 PSI or above recommended for maximum flow.