Mobius T-M50 ASME

TAKAGI Tankless Water Heaters

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

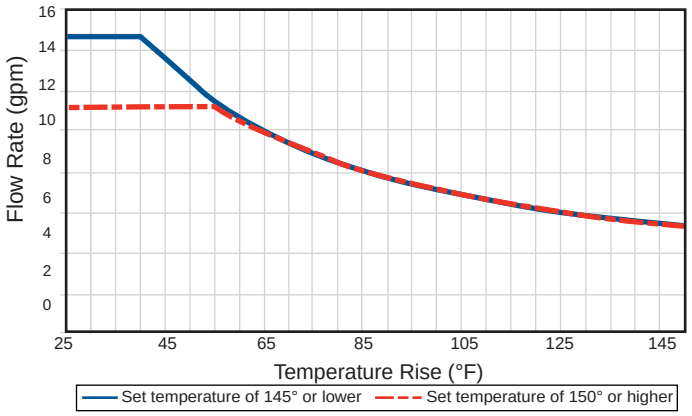
- 5” Category III Stainless Steel
- Vertical or Horizontal Installation
- 50’ Max Length, 5 elbows max (90° elbows = 5’ equivalent length)
- Power Vent
- Electronic Ignition
- 5” Combustion Air Intake (with optional kit)
- 56 dB Noise Level at Max Output

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

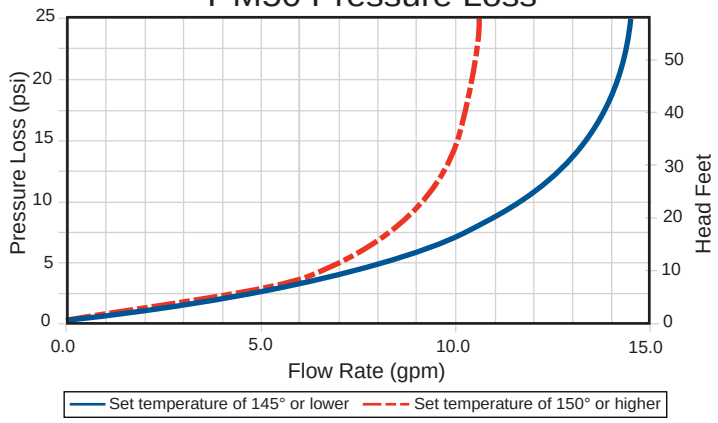
TM-DV50 Direct Vent Conversion Kit (optional)
TM-PC50 Pipe Cover (optional)
TM-VC50 Vent Cap (optional)
TM-BF50 Backflow Preventer (optional)

T-M50 Flow Rate Vs. Temperature Rise



Above shown rate is based on single unit only

T-M50 Pressure Loss



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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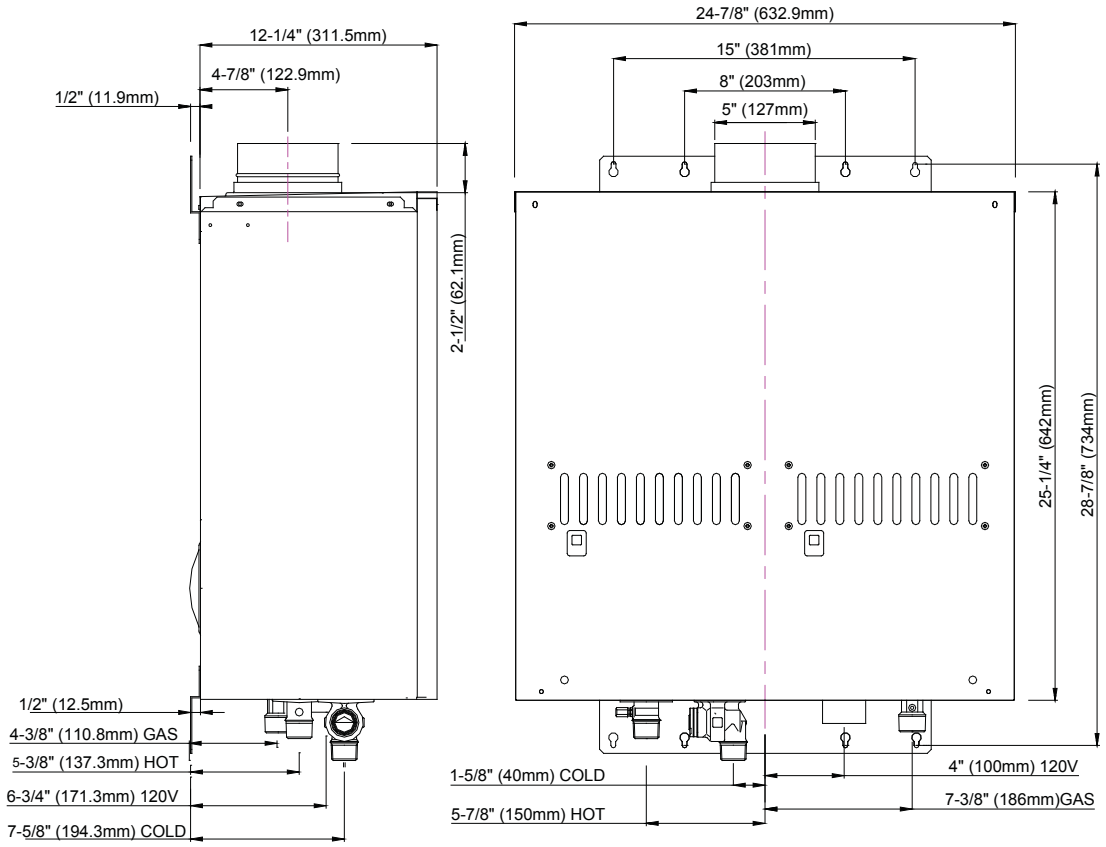

T-M50 ASME :

HT	W	D	WT	Volt	Amp	Flue	Intake	(Hot/Cold/Gas) Connections
25.3"	24.8"	11.8"	112 lbs.	120	1.48	5" O.D.*	5" O.D. (opt.)	1" NPT

	Input Max BTU/h	Input Min BTU/h	Thermal Eff.	Min Press	Max. Press
NG	380,000	15,000	80.2%	5.0" W.C.	10.5" W.C.
LP	380,000	15,000	82.4%	8.0" W.C.	14.0" W.C.

GPM	Water PSI	Coil Cap
0.5 - 14.5**	15 - 150 PSI***	≈0.32 Gallons

Clearances	Top	Bottom	Front	Back	Sides
Indoor	12"	12"	24"	0.5"	2"
Outdoor	36"	12"	24"	0.5"	2"

* Category III Required **Current numbers based on factory testing, 0.4 GPM Required for Continuous Fire After initial Ignition.
***Pressure Only Relief Valve Requires (Min. 380,000 BTUs. 150 PSI). Min 40 PSI or above recommended for maximum flow.

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 horizontally 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.
The water heater(s) shall be CSA listed, exceeds the energy efficiency requirements of ASHRAE 90. 1b-1992.