Description / Application:
Fully modulating gas fired tankless on demand water heater with sealed combustion (optional) and power vented flue. Rated for indoor/outdoor use to supply hot water to: domestic hot water systems (direct or indirect using water storage tank applications) with or without recirculation system piping, hydronic heating systems, radiant floor heating, and combined domestic water and heating water systems.

Fuel: NG or LP

Safety Features
- Built In Freeze Protection
- Manual Reset Hi Limit (set at 190°F)
- Overheat Cut Off Fuse
- Inlet/Outlet Thermistors for Constant Temperature Monitoring
- Flue Backdraft Pressure Switch
- GFI Power Supply Connection
- Flame Sensor

Venting and Combustion
- 4" Category III Stainless Steel
- Vertical or Horizontal Installation
- 35' Max Length (90° elbows = 5' equivalent length)
- Power Vent
- Electronic ignition
- 3" Combustion Air Intake (with optional kit)
- 52 db Fan Noise Level at Max Speed

Accessories:
TK - TV03 Vent Damper
TK - TV05 Direct Vent Terminator
TK - TV01 Wall Ventilation Terminator (indoor)
TK - TV04 Outdoor Vent Cap
TK - TV09 Direct Vent Conversion Kit (optional)
TK - RE02 Temperature Remote Control (optional)

Remote Controller
- 150’ Max Distance From Heater
- Non Polarized 18 Gauged Control Wiring

Temp Settings
Dip Switch:  
- 113°F
- 122°F (*Default)
- 140°F
- 182°F

With RE02 Remote:  
- 99°F
- 100°F
- 102°F
- 104°F
- 106°F
- 108°F
- 109°F
- 111°F
- 113°F
- 115°F
- 117°F
- 122°F
- 131°F
- 140°F
- 158°F
- 167°F

Comments:

August 2005. Irvine, CA

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+Compiled w(NSF-61 standard (certified by TL Lab)
++Met SCAQMD rule 1146.2 (certified by BR Lab)
T-KJr: HT W D WT Volt Amp Flue Intake (Hot/Cold/Gas) Connections
20 14 6 32 lbs. 120 0.84 4" O.D.* 3" O.D. 3/4" NPT

Input Max BTU Input Min BTU Eff% Energy Factor AFUE Min Press. Max Press.
NG 140,000 19,500 83% .83 80.6 5.5" wc 10.5" wc
LP 140,000 17,500 84% .84 80.6 9.5" wc 14.0" wc

GPM DOE GPH TDH - Ft. TDH - PSI Water PSI Coil Cap.
5.8 - 0.75** 180 46.2 - 1.16 20 - 0.5 150 - 15 PSI*** ≈0.5 GPM

Installation Clearances Top Front Back Sides Bottom
12" 24" 1" 2" min 12"

* Category III Required
** 0.6 GPM Required for Continuous Fire After Initial Ignition
*** Pressure Only Relief Valve Required (Min 200,000 BTUs. 150 PSI)

Warranty 7 yrs Heat Exchanger, 2 yrs Parts Only (as of August 2005)

Specification
Flash water heater(s) shall be Model TKJr. as manufactured by Takagi Industrial Company Inc. The Flash 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(s) shall be vented with 4" stainless steel Category III vent pipe a distance not to exceed 35' (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 35' (equivalent). The heater(s) shall be controlled by onboard solid state printed circuit board monitoring incoming and outgoing temperatures with factory installed thermostats, sensing and controlling flow rate to set point temperature which 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, aluminumized stainless steel burners, vent pressure switch, Hi limit switch, modulating and proportional gas valves, freeze protection sensor and heating blocks and overheat cut-off fuses.

The water heater(s) shall be CSA listed, exceeds the energy efficiency requirements of ASHRAE 90.1b-1992 and listed by SCAQMD rule 1146.2 Low NOx.