



## 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)

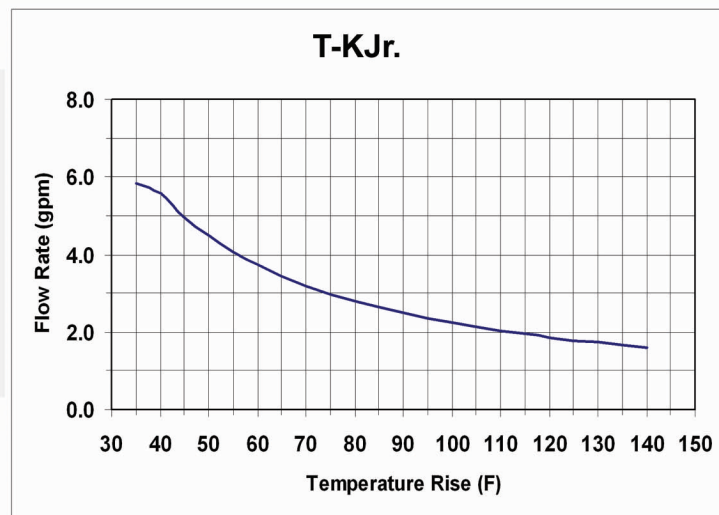
## Remote Controller

- 150' Max Distance From Heater
- Non Polarized 18 Gauge Control Wiring

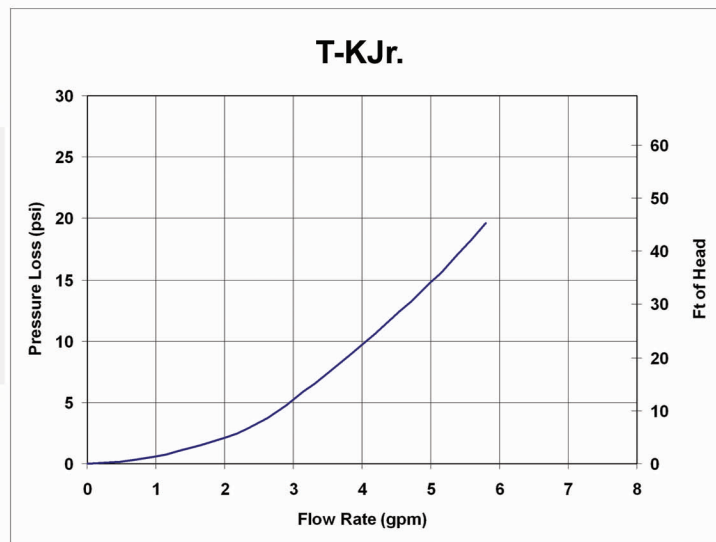
## Temp Settings

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



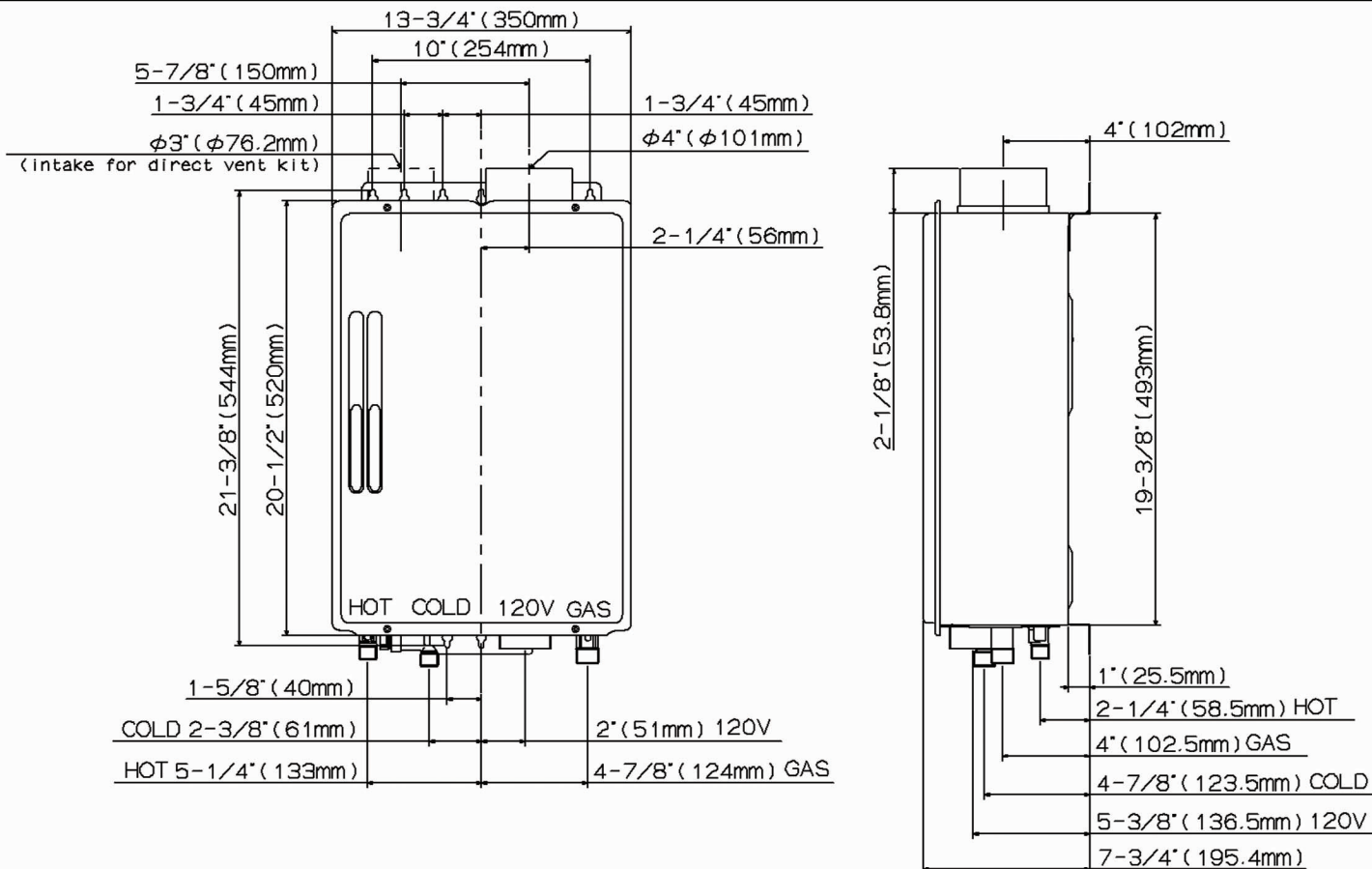
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TRUESDAIL  
LABORATORIES, INC.

NSF-61 standard<sup>+</sup> SCAQMD 1146.2<sup>++</sup>

Model T-KJr.  
**TAKAGI**



August 2005, Irvine, CA

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
	<b>Input</b>	<b>Input</b>							
	<b>Max BTU</b>	<b>Min BTU</b>	<b>Eff%</b>	<b>Energy Factor</b>	<b>AFUE</b>	<b>Min Press.</b>	<b>Max Press.</b>		
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		
	<b>GPM</b>	<b>DOE GPH</b>	<b>TDH - Ft.</b>	<b>TDH - PSI</b>	<b>Water PSI</b>	<b>Coil Cap.</b>			
	5.8 - 0.75**	180	46.2 - 1.16	20 - 0.5	150 - 15 PSI***	≈0.5 GPM			
<b>Installation</b>	<b>Top</b>	<b>Front</b>	<b>Back</b>	<b>Sides</b>	<b>Bottom</b>				
<b>Clearances</b>	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 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 thermistors, 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, aluminized 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.