



Residential / Commercial Gas Tankless Water Heaters

PROLINE® XE GAS TANKLESS WITH X3™ SCALE PREVENTION TECHNOLOGY

Takagi has combined water heating and treatment in a product designed to revolutionize tankless water heating. Our new condensing gas tankless line features X3 Technology to last three times longer than competitive models.

FEATURES:

X3 SCALE PREVENTION TECHNOLOGY (PATENT PENDING)

- Extends life of unit up to 3 times longer
- Eliminates need for isolation valves
- No annual descaling required
- No conditioning period required when using new copper pipe
- Maintains like-new performance longer

INTEGRATED RECIRCULATION PUMP

- Title 24 Compliant

ENERGY STAR® QUALIFIED

FIELD CONVERTIBLE FROM NATURAL GAS TO PROPANE

DUAL STAINLESS STEEL HEAT EXCHANGERS

EASY-LINK™ SYSTEM

QUALIFIED AS LEAD FREE UNDER THE SAFE DRINKING WATER ACT

SAFETY FEATURES:

- Exhaust & Water Temperature Safety Control
- Overheat Cut-Off Fuse

INTERNAL FREEZE PROTECTION SYSTEM

OPERATES WITH 1/2-INCH GAS LINE

- Includes 1/2-inch gas connection

POWER DIRECT VENT DESIGN

- Category IV venting can be used
- Exhaust, 2" PVC pipe up to 60 equivalent feet or 3" PVC pipe up to 150 equivalent feet
- Provides flexible venting with PVC, CPVC, polypropylene, or ABS Pipe for Intake and Exhaust (solid core only).

ACCESSORIES

- Pipe Cover
- Neutralizer Kit
- Outdoor Vent Kit
- Recess Box
- Low Profile Terminations

WARRANTY

- No hard water exclusions
- 15-year limited warranty on heat exchanger in residential applications
- 1-year limited warranty on heat exchanger in commercial applications
- 5-year limited warranty on all parts
- For complete information, consult written warranty or go to takagi.com

INDOOR



TK-160X3P, TK-180X3P, TK-199X3P

INDOOR



SHOWN WITH OUTDOOR VENT KIT ACCESSORY



ANSI Z21.10.3 • CSA 4.3



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CONDENSING TANKLESS WITH X3™ SCALE PREVENTION TECHNOLOGY

MODEL NUMBER	TYPE*	GAS CONSUMPTION INPUT		INLET GAS PRESSURE**		UEF	MAXIMUM GPM***	HOT/COLD CONNECTIONS	GAS CONNECTION	DIMENSIONS IN INCHES			APPROX. SHIPPING WEIGHT (LBS)
		MINIMUM BTU/H	MAXIMUM BTU/H	MINIMUM IN. W.C.	MAXIMUM IN. W.C.					HEIGHT	WIDTH	DEPTH	
TK-160X3P	Natural	9,000	160,000	3.5	10.5	0.93	6.5	3/4" NPT	1/2" NPT	28-5/8	17-11/16	11-3/4	80
TK-180X3P	Natural	9,000	180,000	3.5	10.5	0.93	8	3/4" NPT	1/2" NPT	28-5/8	17-11/16	11-3/4	80
TK-199X3P	Natural	9,000	199,000	3.5	10.5	0.93	10	3/4" NPT	1/2" NPT	28-5/8	17-11/16	11-3/4	80

1.5-1.50 PSI water pressure. 40 PSI or above recommended for maximum flow.

*Field gas convertible from natural gas to propane. Conversion kit is included with the heater.

** For propane, minimum inlet gas pressure is 8.0 in W.C. and maximum inlet gas pressure is 13.0 in W.C.

*** Current numbers based on factory testing; 0.4 GPM required for activation; 0.26 GPM required for continuous fire after initial ignition.

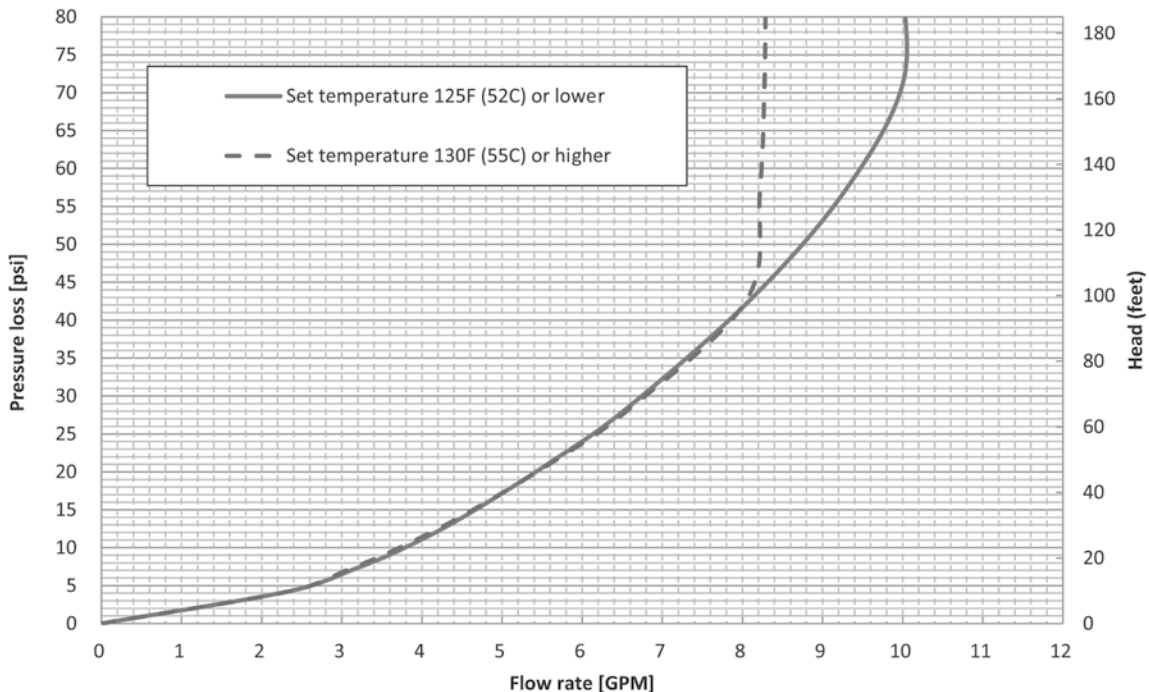
Maximum certified or allowable installed altitude is 10,100 for indoor installations and 6,000 feet for outdoor installations.

PRESSURE LOSS

FLOW RATE	GPM	0	2	3	4	5	6	7	8	9	10
	L/min	0	8.9	11.9	14.3	17.2	21.3	24.9	30.6	35.1	37.9
Set temperature 125F (52C) or lower	psi	0	4	7	10	14	21	28	43	57	71
	kPa	0.0	29.4	49.0	68.7	98.1	147.1	196.2	294.3	392.4	490.4

FLOW RATE	GPM	0	2	3	4	5	6	7	8
	L/min	0	8.9	11.7	14.1	17.1	21.3	25.0	30.5
Set temperature 130F (55C) or higher	psi	0	4	7	10	14	21	28	43
	kPa	0.0	29.4	49.0	68.7	98.1	147.1	196.2	294.3

Pressure loss



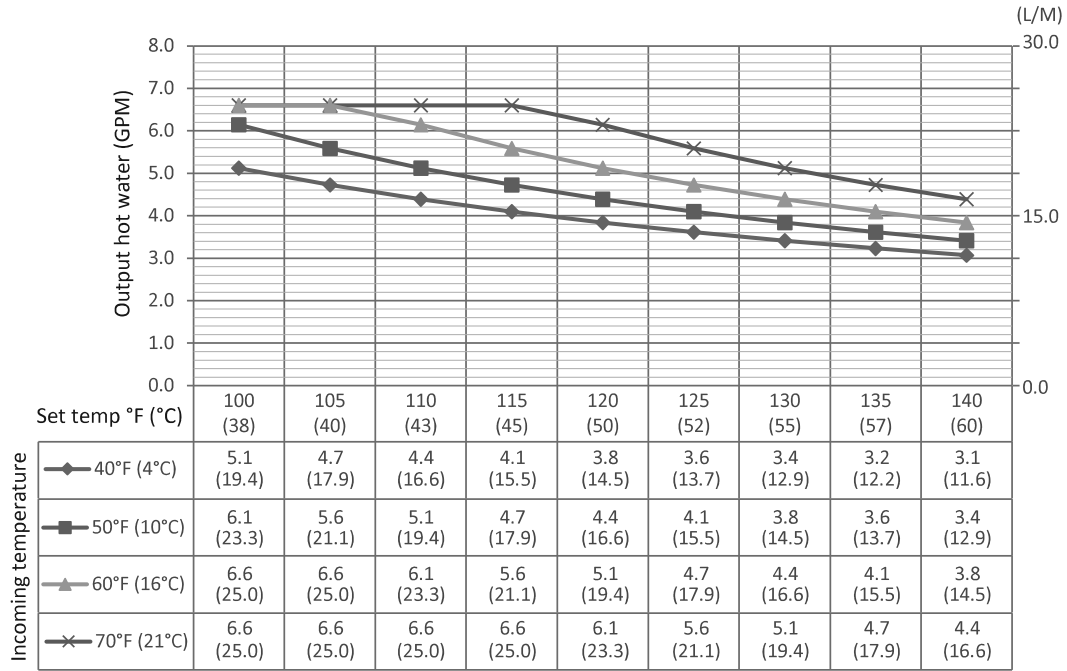


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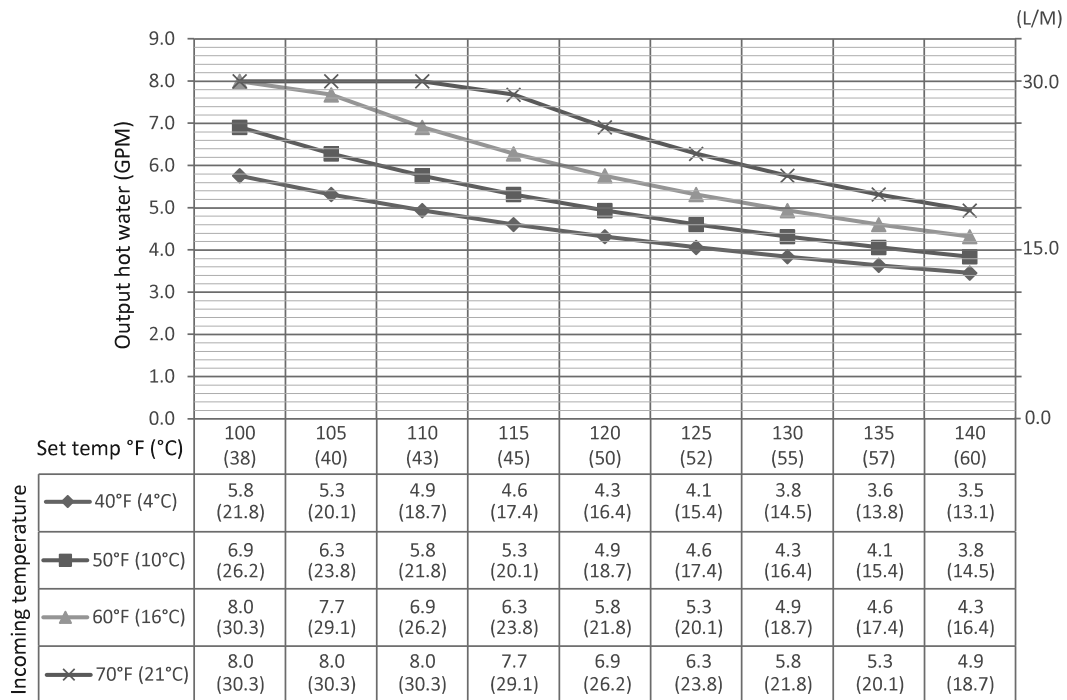
OUTPUT TEMPERATURE CHART

The chart is based on a properly sized gas line and installation at 0-2,000 ft (0-610 m).
The water heater will de-rate 4% per 1,000 ft (305 m) of elevation increase above 3,000 ft (914 m.)

160X3P Output Temperature vs. GPM (Max. 6.6 GPM) with Various Inlet Water Temperature



180X3P Output Temperature vs. GPM (Max. 8.0 GPM) with Various Inlet Water Temperature



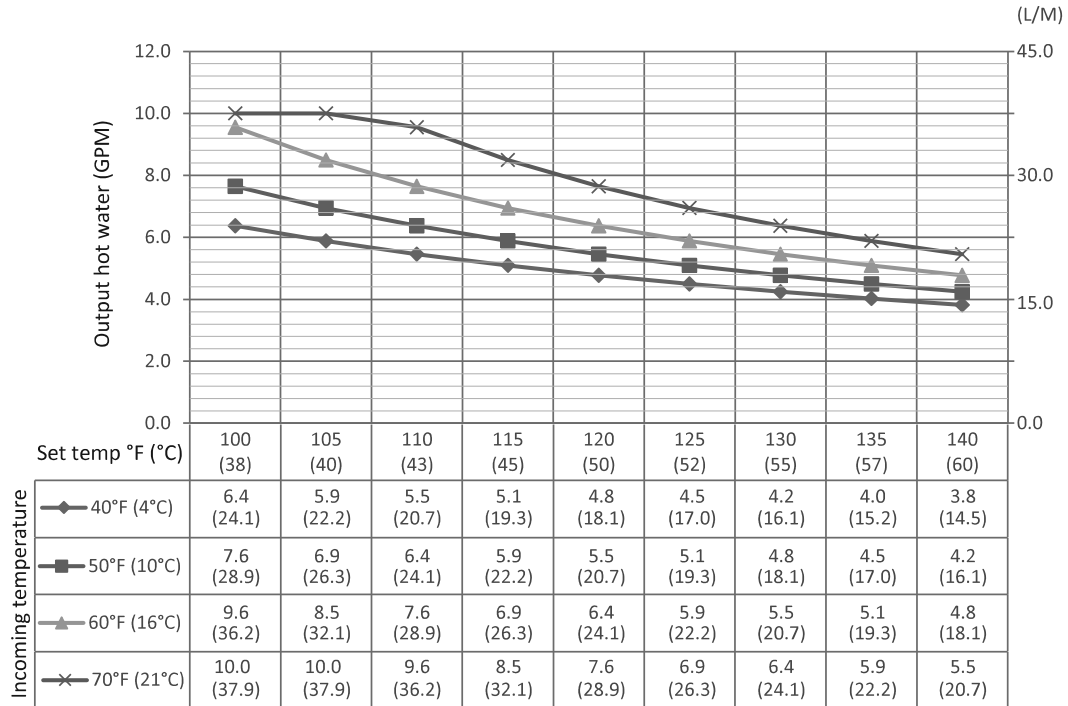


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OUTPUT TEMPERATURE CHART

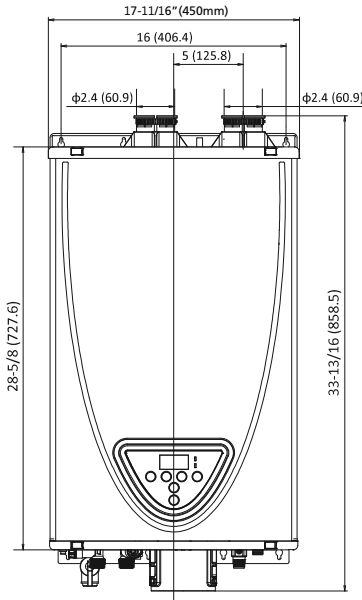
199X3P

Output Temperature vs. GPM (Max. 10.0 GPM) with Various Inlet Water Temperature

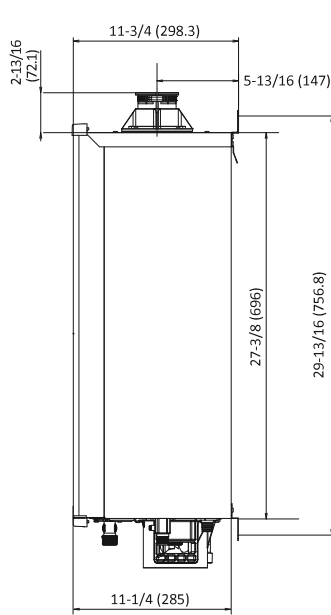


When the set temperature is 130°F (55°C) or higher, maximum flow rate is limited to 8.0 GPM.

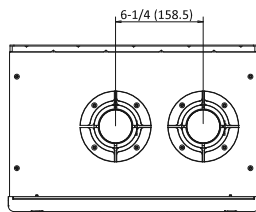
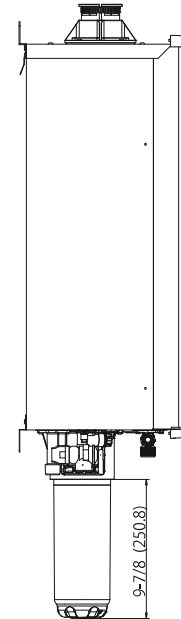
DIMENSIONS



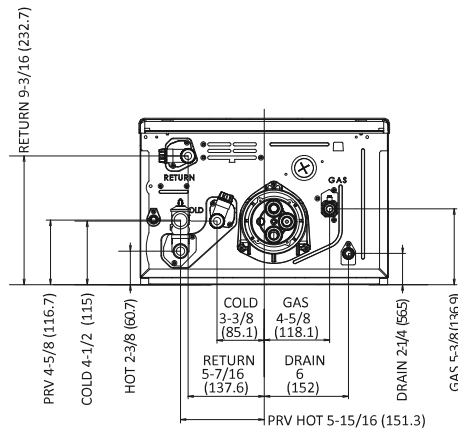
FRONT



SIDE



TOP



BOTTOM



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SUGGESTED SPECIFICATION FOR TK-199X3P

The fully modulating, on-demand, condensing gas fired tankless water heater(s) with integrated recirculation pump shall be Takagi Tankless Water Heater model TK-199X3P having a maximum input rating of 199,000 Btu/h and available in NG or LP. The heater shall have 3/4 in. male NPT water and 1/2" gas connections. The inlet gas supply pressures shall be 3.5 in. WC (min.) up to 10.5 in. WC (max.) for NG and 8.0 in. WC (min.) up to 13 in. WC (max.) for LP. The heaters shall incorporate an integrated temperature controller that will provide pump control, diagnostic information, fault history, and heater set temperature. The heater shall operate using 120 V / 60 Hz power source.

The heater shall be vented with 2" or 3" diameter schedule 40 PVC (solid core), CPVC, ABS, polypropylene or category IV vent pipe with a length not to exceed 60 ft. (equivalent) for 2" vent or 150 ft. (equivalent) for 3" vent, terminating horizontally or vertically. The intake pipe may use material such as PVC, (solid core) CPVC, ABS, aluminum, or Category IV pipe and cannot exceed 60 ft. (equivalent) for 2" vent or 150 ft. (equivalent) for 3" vent.

The water heaters shall use primary and secondary heat exchangers constructed from stainless steel. The heater shall be controlled by an onboard solid-state printed circuit board which uses the following factory installed components: thermistors to monitor inlet & outlet water temperature and exhaust temperature; a flow sensor to measure flow rate; a flame sensor to monitor combustion. The heater also consists of inline fusing and surge absorbers for electrical surge protection, an electronic spark igniter, aluminized stainless steel burners, hi-limit temperature switches to monitor water and exhaust temperatures, modulating gas valve, an overheat cutoff fuse and ceramic heating blocks to protect the heat exchanger and water piping from freezing. The water heater shall incorporate auto-fire system and a pump circulation operation for additional freeze protection. The water heater shall include an exhaust temperature monitoring system using an exhaust thermistor and automatic hi-limit switch to maintain safe exhaust temperatures for sch. 40 PVC. The heater shall have a built-in condensate trap for the secondary heat exchanger.

The heater can manifold into an Easy-Link to provide additional capacity. The Easy-Link controls shall be built onto the onboard solid-state printed circuit board and does not require external controls. The linking control wire shall be supplied with the heater.

The heater shall be design certified by CSA according to ANSI Z21.10.3 • CSA 4.3, approved for sale in the United States, ENERGY STAR® qualified, has a minimum Uniform Energy Factor of 0.93, meets the energy efficiency requirements of the U. S. Department of Energy and ASHRAE 90.1 and complies with SCAQMD Rule 1146.2 and other air quality districts with similar requirements for low NO_x emissions of 14 ng/J or 20 ppm.