



**Patterson-Kelley**

# P-K HiDRA™

Instantaneous Condensing Hot Water Heater



Introducing the first commercial grade fire tube water heater from Patterson-Kelley. The HiDRA™'s recirculating pump continuously mixes for consistent hot water output every time. With models ranging up to 1000 MBTU, 5:1 turndown, and sporting the most technologically advanced NURO® Touch-Screen Control, the HiDRA™ efficiently provides reliable performance, year-after-year.

## Specifications

- Dimensions: 54" D x 34.5" W x 85" H
- Water Content: 128 Gallons
- 150 PSI Pressure Vessel
- Electrical Requirements: 120 VAC, 60 Hz

## Options and Accessories

- Tie-in for Building Recirculation is Standard, Building Recirculation Pump is Optional
- Cascading Domestic Hot Water Mode

## FEATURES

- ✓ Up to 1000 MBTU - Hot Water Demand
- ✓ Instantaneous Condensing Hot Water Heater with HLW Stamp
- ✓ Duplex Alloy Stainless Steel Storage Tank and Heat Exchanger
- ✓ Dedicated Recirculating Pump
- ✓ Helically Coiled Single Pass Heat Exchanger
- ✓ NURO® Touch Screen Control System with NURO® Connect

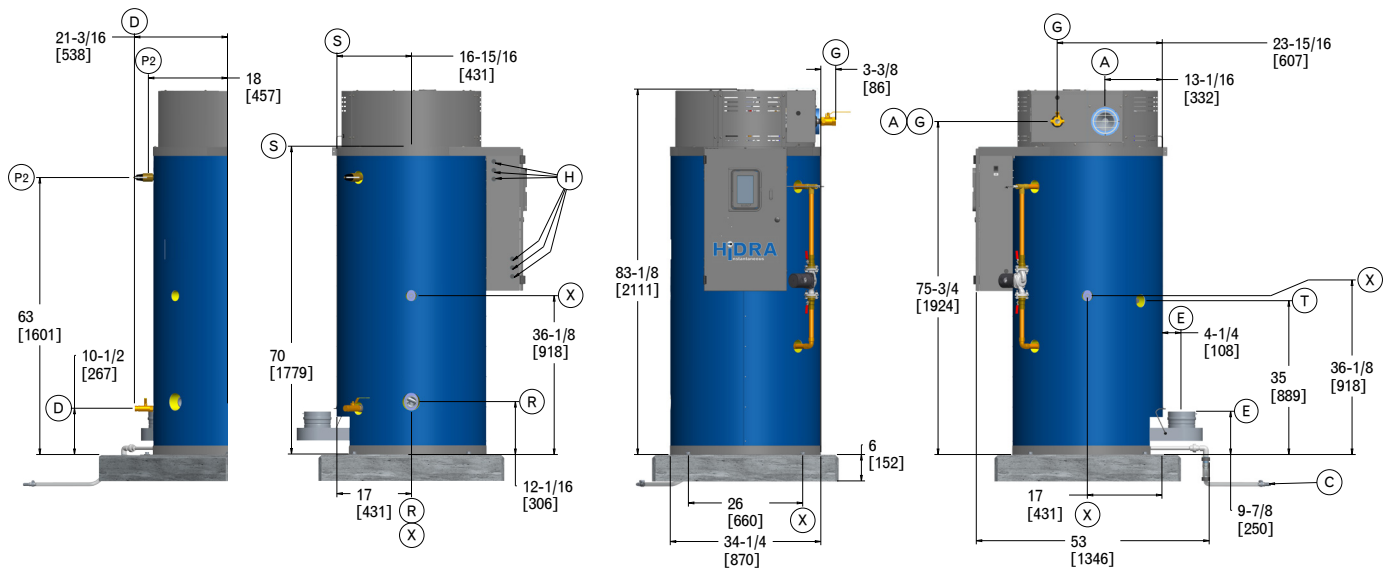
## ADVANTAGES

- ✓ Up to 99% efficient at partial load
- ✓ Standard: Fully Modulating 5:1 Turndown
- ✓ Anticipated Temperature Control to Rapidly Respond to Varying Flow Conditions
- ✓ 15 Year Warranty
- ✓ ASME / CSA Certified
- ✓ Meets ASHRAE 90.1
- ✓ NSF Compliant
- ✓ ASME Section IV HLW Rated

*Because we are continuously evolving our products, descriptions and technical data are subject to change without notice.  
Contact your local Harsco Industrial Patterson-Kelley representative for the most up-to-date information and product application support.*

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## Instantaneous Condensing Hot Water Heater



Primary dimensions are in inches. The secondary dimensions, [in brackets], are in millimeters.

This HiDRA water heater requires Cat. IV venting (condensing-positive pressure) or Cat. II venting<sup>1</sup> (condensing-negative pressure as defined in ANSI Z223.1/NFPA 54/CSA-B.149 latest edition).

<sup>1</sup>Category II venting must include the optional combustion air damper

WATER HEATER CONNECTIONS		
A	Combustion Air Inlet	6" dia. stub
C	Condensate Drain	3/4" hose
D	Tank Drain Valve	1" NPT-F
E	Exhaust Vent	6"
F	Heat Exchanger Drain	3/4" NPT
G	Natural Gas	1" NPT-F
H	Wiring Junction Boxes	inside cabinet
P1	Pressure Relief Valve	options available
P2	T&P Relief Valve	options available
R	Hot Water Return	2" NPT
S	Hot Water Supply	2" NPT
T	Building Recirculation	1" NPT
X	Anchor Bolt Locations	(6) 1/2" Bolt Holes

A.S.M.E. SECTION IV DESIGN DATA	HC-800	HC-1000
Max Pressure	160 PSIG	
Max Allowable Temperature	210°F	
Max Operating Temperature	180°F	
Heated Surface Area, Section IV	107.81 sq. ft.	132.96 sq. ft.
Recovery Rate (70°-140°F)	1289 gph	1611 gph
Recovery Rate (40°-140°F)	902 gph	1128 gph

MODEL SELECTION		
Water Heaters	HC-800	HC-1000
Fuel Options	Natural Gas	Natural Gas
Min Inlet Gas Pressure	3.5" W.C.	
Max Inlet Gas Pressure	14" W.C.	
Max Input (BTU/hr)	800,000	1,000,000
Max Output (BTU/hr)	752,000	940,000
Water Heater HP	23.9	29.9
Min Input (BTU/hr)	160,000	200,000
Turndown Ratio	5:1	5:1
Estimated Operating/ Shipping Weight	1920 lbs/1000 lbs	1920 lbs/1000 lbs
Domestic Water Content	128 Gallons	
Shipping Dimensions	60" x 36" x 92"	
Power Supply	110/120V 1PH 60 hz	
Operating Current	< 7 amps	< 10 amps
Recommended Minimum Circuit Capacity	10 amps	

RECOMMENDED CLEARANCE FOR SERVICE ACCESS				
Front - 24"	Rear - 0"	Top - 16"	Left Side - 0"	Right Side - 0"

**Harsco Industrial Patterson-Kelley**

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1005101792 Rev C Apr-2018