

Rep Name: \_\_\_\_\_

Project: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Location: \_\_\_\_\_

Email: \_\_\_\_\_

Address: \_\_\_\_\_

Date:        /        / \_\_\_\_\_

## Overview

The DURATION III is a fully packaged water-to-water indirect Domestic Hot Water system specifically engineered to complement any hot water source or boiler. More importantly, it offers low cost of ownership through simplicity, high efficiency, durability and ease of installation.

To ensure longevity, the DURATION III has a durable 316 stainless steel brazed-plate heat exchanger. All wetted parts (potable water side) are lead free and made of robust stainless steel, copper or copper alloy materials. The construction features a double-wall heat exchanger with a revolutionary true air gap.

## Available Models

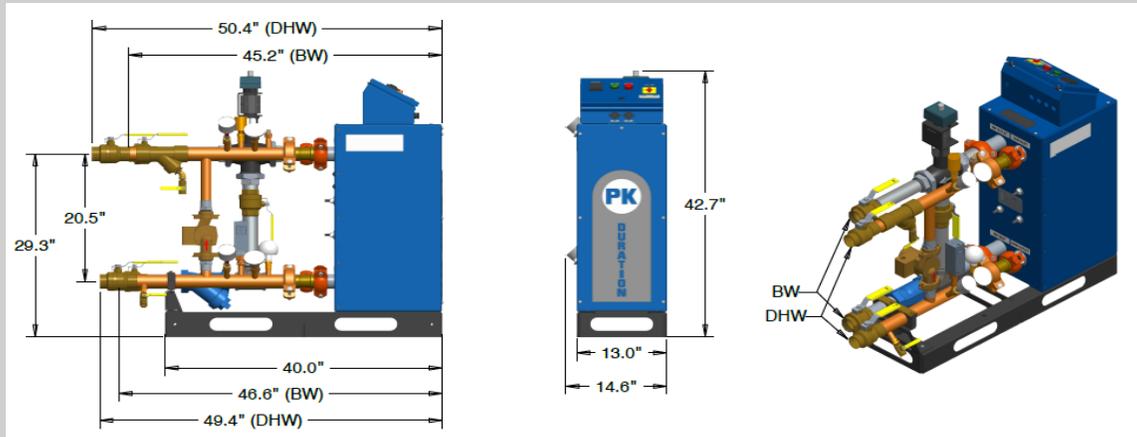
Instantaneous Models			Model Highlights: These models are designed to be used with a large supply of hot water. These models are designed to provide hot domestic water without the use of a storage tank. The boiler side piping features an electronically controlled three-way control valve that diverts the flow of the boiler water through or around the heat exchanger, depending on the load. Both the boiler and domestic side piping come with wye strainers. The domestic piping comes with various temperature and pressure measuring devices to maintain accurate heating.
Model Number	Part Number		
<input type="checkbox"/> D3-30I	DWH3030102		
<input type="checkbox"/> D3-50I	DWH3050102		
<input type="checkbox"/> D3-80I	DWH3080102		
Pumped Models			Model Highlights: These models are designed to be closely coupled to a condensing boiler and a storage tank for hot water supply. This model group comes with both boiler side and domestic side pumps. These models can be ordered with an optional air expansion tank installed on the boiler side piping coupled with a fill line from the domestic piping. The domestic piping comes with various temperature and pressure measuring devices to maintain accurate heating.
Model Number	Part Number		
<input type="checkbox"/> D3-30P	DWH3030202		
<input type="checkbox"/> D3-30PE	DWH3030212		
<input type="checkbox"/> D3-50P	DWH3050202		
<input type="checkbox"/> D3-50PE	DWH3050121		
Base Models			Model Highlights: These models provide a versatile platform to deliver hot water solutions. This design allows for the customer to install the piping, pumps, controls, and etc. of their choosing on our platform, cabinet, heat exchanger, and control panel. Optional parts and accessories are available, but do not come standard with these models.
Model Number	Part Number		
<input type="checkbox"/> D3-30	DWH3030002		
<input type="checkbox"/> D3-50	DWH3050002		
<input type="checkbox"/> D3-80	DWH3080002		

Notes:

- All DURATION III models are designed to be able to be mated side by side to reduce their footprint.
- Patterson-Kelley reserves the right to make changes at any time without notice.



MODELS: D3-30I, D3-50I, & D3-80I



\*Dimensions of pipe length can vary slightly due to joint engagement

### DURATION III INSTANTANEOUS PERFORMANCE SPECS

DHW Temperature Rise	Duration III Model	DHW Flow Rate	DHW Pressure Drop	Boiler Water Inlet	Boiler Water Outlet	Boiler Water Flow Rate	Boiler Water Pressure Drop
40 °F to 140 °F	D3-30I	25 GPM	5.1 ft.	160°F	105°F	46 GPM	17.2 ft.
	D3-50I	45 GPM	5.7 ft.			83 GPM	19.4 ft.
	D3-80I	65 GPM	5.3 ft.			100 GPM	12.4 ft.
60 °F to 120 °F	D3-30I	50 GPM	20.4 ft.	150°F	105°F	68 GPM	37.7 ft.
	D3-50I	70 GPM	13.8 ft.			94 GPM	24.8 ft.
	D3-80I	82 GPM	8.4 ft.			100 GPM	12.4 ft.

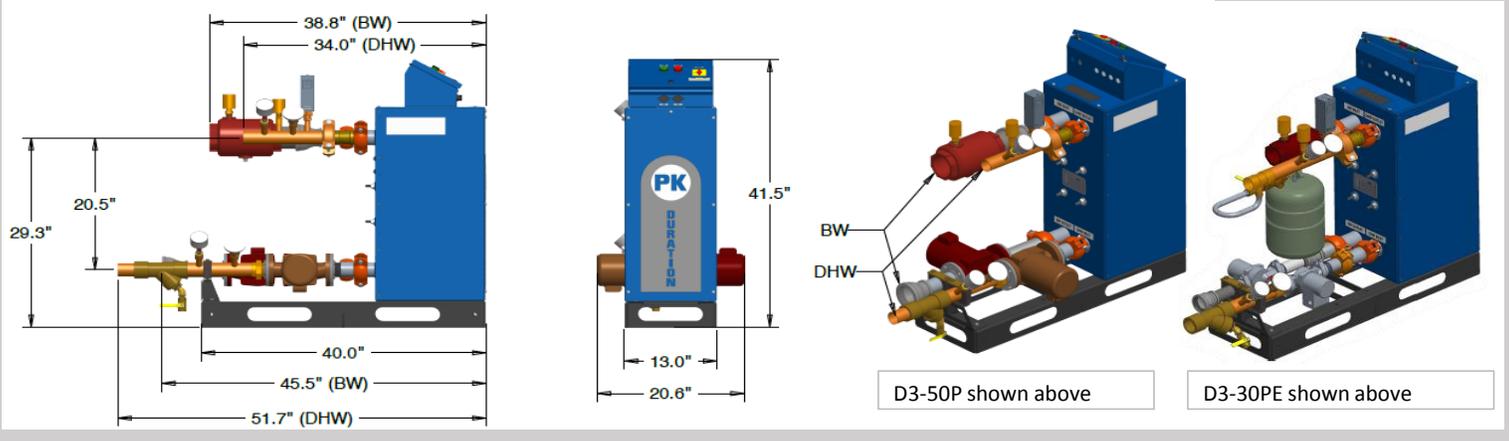
Models	D3-30I	D3-50I	D3-80I
# Plates in Heat Exchanger	30	50	80
DHW Heat Exchanger Type	ASME Section VIII – Div. 1 “U” Stamp Double-Wall Brazed Plate		
Plate & Brazing Material	316 Stainless Steel Plates w/ Copper Brazing		
Domestic Water (Open Loop) Piping Detail	2” O.D. Lead-Free Copper Terminates with 2” Ball Valves (Sweat)		
Boiler Water (Closed Loop) Piping Detail	2” Schedule 40 Steel Pipe Terminates with 2” Ball Valves (NPT-F)		
Boiler Water Flow Device	Electronically Controlled 3-Way Diverting Valve		
Electrical Supply	120VAC, 1 Phase, 60Hz (10 Amps Max)		



# P-K DURATION III Pumped



MODELS: D3-30P, D3-30PE, D3-50P, & D3-50PE



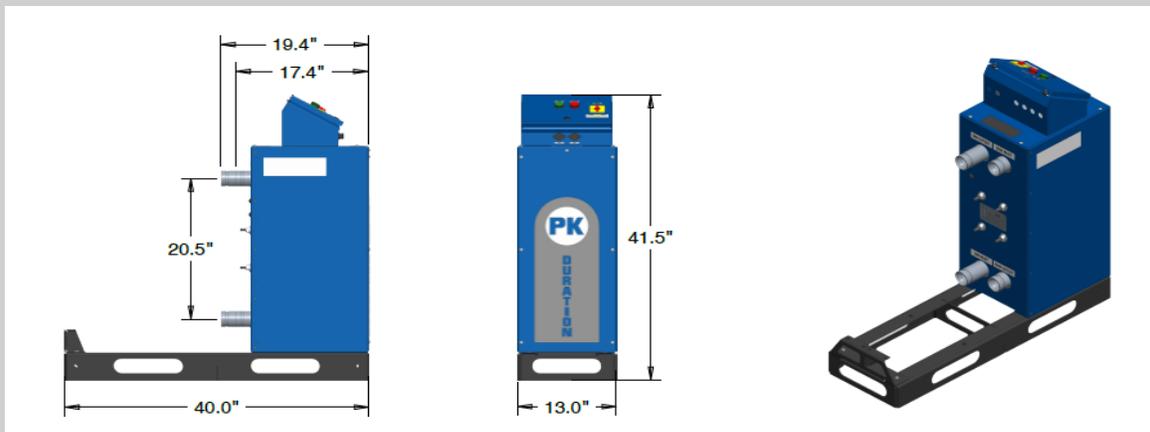
\*Dimensions of pipe length can vary slightly due to joint engagement and model selection

Models	D3-30P/D3-30PE	D3-50P/D3-50PE
# Plates in Heat Exchanger	30	50
DHW Heat Exchanger Type	ASME Section VIII – Div. 1 “U” Stamp Double Wall Brazed Plate	
Plate & Brazing Material	316 Stainless Steel Plates w/ Copper Brazing	
Domestic Water (Open Loop) Piping Detail	2” O.D. Lead-Free Copper Terminates with 2” tube connection	
Domestic Water Flow Device	Lead-Free Bronze Circulation Pump	
Boiler Water (Closed Loop) Piping Detail	2” Schedule 40 Steel Pipe	
	2” FPT connection	3” FPT connection
Boiler Water Flow Device	Circulation Pump	
Electrical Supply	120VAC, 1 Phase, 60Hz (15 Amps Max)	

# P-K Duration III Base



MODELS: D3-30, D3-50, & D3-80



# P-K DURATION III Pumped Performance

