



Weaver

CONSTRUCTION MANAGEMENT

3679 S Huron Street, Suite 404 Englewood, Colorado 80110
Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

March 27, 2012

Submittal No: 15400-005.B

PROJECT: **Harold Thompson Regional WRF**
Birdsall Rd.
Fountain, CO 80817
Job No. 2908

ENGINEER: **GMS, Inc.**
611 No. Weber St., #300
Colorado Springs, CO 80903
719-475-2935 Roger Sams

OWNER: **Lower Fountain Metropolitan
Sewage Disposal District**
901 S. Santa Fe Ave.
Fountain, CO 80817
719-382-5303 James Heckman

CONTRACTOR: **Contract Mechanical Services, Inc.**
P.O.Box 63323
Colorado Springs, CO 80962
719-596-7717 Jeff Payne

SUBJECT: Resubmittal - Rheem Power Direct Vent/Induced Draft Water Heater for EM Building - Model PDV40.

SPEC SECTION: 15400 2.1 C.4

PREVIOUS SUBMISSION DATES: 3/19/12

DEVIATIONS FROM SPEC: ___ YES X NO (approve as equal)

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver Construction Management and, unless indicated otherwise, has been found to be in conformance with the intent of the contract documents.

Contractor's Stamp:

Engineer's Stamp:

Date: 3/27/12

Reviewed by: Chuck Berry

(x) Reviewed Without Comments

() Reviewed With Comments

ENGINEER'S
COMMENTS: _____



The new degree of comfort.™



Residential Gas
Power Direct Vent Water Heaters

Power Direct Vent induced draft gas water heater is a perfect choice for tight construction or when indoor air quality is a concern

Efficiency

- .62 - .67** EF

Performance

- FHR: Up to 139-gallons for natural and LP gas
- Recovery: 38.4 to 75.8 at a 90 degree rise, based on model

Self-Diagnostic System

- Integrated system control for easy installation and service



Low Emissions

- Eco-friendly burner, low NOx design

Features

- Two pipe system: one pipe pulls in outside air for combustion and the other exhausts combustion gases
- 120 VAC powered blower
- New whisper quiet blower

Flammable Vapor Detection System

- Protective control system that disables the heater in the presence of flammable vapor accumulation

Flexible Venting Options

- Long venting lengths up to 100 feet
- PVC, ABS, or CPVC vent pipe options
- Vertical or horizontal termination
- Concentric vent kit available

Longer Life

- Patented magnesium anode rod with resistor protects the tank from rust

High Altitude Compliant

- Models are certified for applications up to 10,200 feet above sea level

Plus...

- Brass drain valve and temperature and pressure relief valve are included
- Durable silicon nitride igniter (HSI)
- Side taps for space heating applications on 50-65, 65 and 75-gallon models
- EverKleen™ device removes sediment
- Standard replacement parts

Warranty

- 6-Year limited tank and parts warranty*
- With ProtectionPlus™ the 6-year limited tank warranty becomes 10-year

*See Residential Warranty Certificate for complete information

Units meet or exceed ANSI requirements and have been tested according to D.O.E. procedures. Units meet or exceed the energy efficiency requirements of NAECA, ASHRAE standard 90, ICC Code and all state energy efficiency performance criteria.



Power Direct Vent

Induced Draft

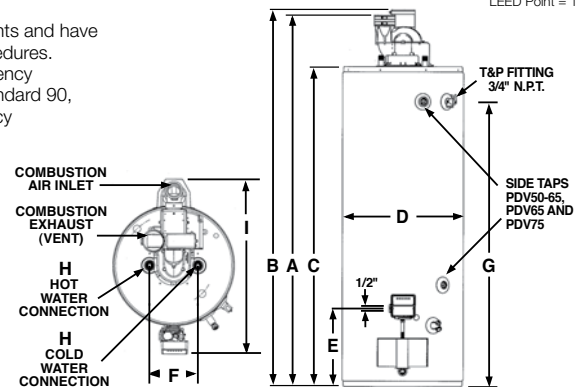
40 to 75-Gallon Capacities

Up to 75,100 Btu/h

Natural and LP Gas



LEED Point = 1



TYPE	DESCRIPTION		FEATURES						ROUGHING IN DIMENSIONS (SHOWN IN INCHES)										ENERGY INFO.		
	GAL. CAP.	MODEL NUMBER	GAS INPUT IN THOUS. BTU/H		RECOVERY IN G.P.H. 90° RISE		FIRST HOUR DEL. G.P.H.		HT. TO TOP OF VENT A	HT. TO TOP OF AIR INLET B	TANK HT. C	DIAM. D	HT. TO GAS CONN. E	WATER CONN. CNTR. F	HT. TO SIDE T&P VALVE G	WATER CONN. SIZE H	FRONT TO BACK I	SHIP. WT. (LBS)	ENERGY FACTOR		AVG. ANN. OPER. COSTS NAT.
TALL	40	PDV40**	NAT.	LP	NAT.	LP	NAT.	LP	68-1/2	69-1/4	60-1/4	19-3/4	14	8	53-3/4	3/4	29-1/2	180	NAT.	LP	\$272
	50	PDV50**	40	40	40.4	40.4	93	93	67-5/8	67-7/8	59-3/8	21-3/4	14	8	52-3/4	3/4	31-1/2	205	0.67	0.67	\$272
	50	PDV50-65	65	47	65.7	47.5	111	92	67-5/8	68-3/8	59-3/8	21-3/4	14	8	52-3/4	3/4	31-1/2	210	0.62	0.62	\$294
	65	PDV65	65	56	65.7	56.6	120	113	71-1/4	72-1/4	61-3/4	23	14-5/8	11	54	3/4	34-1/4	285	0.62	0.62	\$294
	75	PDV75	75.1	70	75.8	70.7	139	139	70-3/8	71-1/4	60-1/2	26-1/4	15	11	53	1	36-3/4	325	-	0.62	\$495 ¹

¹PDV75 LP annual operating cost.

** .67 EF exceeds ENERGY STAR® Phase II requirements, Sept. 2010.

Specify LP gas when ordering. Add "P" suffix to the model number. Example PDV40P.

Energy Factor and Average Annual Operating Costs based on D.O.E. (Department of Energy) test procedures. D.O.E. national average fuel rate natural gas \$1.218/therm; LP \$1.87/gallon.



INTEGRATED HOME COMFORT



The new degree of comfort.™



Residential Gas
Power Direct Vent Water Heaters

Air-Inlet Venting Information for PDV40 and PDV50

From Sea Level Through 5,999 ft. Above Sea Level					
Model	Vent & Combustion Air-Inlet System Diameter (Inches)	Minimum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Maximum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Vent and Combustion Air-Inlet System Termination(s)	
PDV40	2	7	30	90° Elbows	Concentric*
PDV40	3	7	60	90° Elbows	–
PDV40	3	7	50	–	Concentric*
PDV50	2	7	30	90° Elbows	Concentric*
PDV50	3	7	60	90° Elbows	–
PDV50	3	7	50	–	Concentric*

From 6,000 ft. Above Sea Level Through 7,700 ft. Above Sea Level					
Model	Vent & Combustion Air-Inlet System Diameter (Inches)	Minimum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Maximum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Vent and Combustion Air-Inlet System Termination(s)	
PDV40	2	7	15	90° Elbows	–
PDV40	2	7	30	–	Concentric*
PDV40	3	7	60	90° Elbows	–
PDV40	3	7	50	–	Concentric*
PDV50	2	7	15	–	Concentric*
PDV50	3	7	60	90° Elbows	–
PDV50	3	7	50	–	Concentric*

From 7,701 ft. Above Sea Level Through 10,200 ft. Above Sea Level					
Model	Vent & Combustion Air-Inlet System Diameter (Inches)	Minimum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Maximum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Vent and Combustion Air-Inlet System Termination(s)	
PDV40	2	7	15	–	Concentric*
PDV40	3	7	60	90° Elbows	–
PDV40	3	7	50	–	Concentric*
PDV50	3	7	60	90° Elbows	–
PDV50	3	7	50	–	Concentric*

Air-Inlet Venting Information for PDV50-65, PDV65 and PDV75

From Sea Level Through 2,000 ft. Above Sea Level					
Model	Vent & Combustion Air-Inlet System Diameter (Inches)	Minimum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Maximum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Vent and Combustion Air-Inlet System Termination(s)	
PDV50-65	3	7	50	90° Elbows	–
PDV50-65	3	7	40	–	Concentric*
PDV50-65	4	7	100	90° Elbows	–
PDV65	3	8	50	90° Elbows	–
PDV65	3	8	40	–	Concentric*
PDV65	4	8	100	90° Elbows	–
PDV75	3	8	50	90° Elbows	–
PDV75	3	8	40	–	Concentric*
PDV75	4	8	100	90° Elbows	–

From 2,001 ft. Above Sea Level Through 5,999 ft. Above Sea Level					
Model	Vent & Combustion Air-Inlet System Diameter (Inches)	Minimum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Maximum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Vent and Combustion Air-Inlet System Termination(s)	
PDV50-65	3	7	50	90° Elbows	–
PDV50-65	3	7	40	–	Concentric*
PDV50-65	4	7	100	90° Elbows	–
PDV65	3	8	30	90° Elbows	–
PDV65	3	8	20	–	Concentric*
PDV65	4	8	100	90° Elbows	–
PDV75	3	8	25	90° Elbows	–
PDV75	3	8	20	–	Concentric*
PDV75	4	8	100	90° Elbows	–

From 6,000 ft. Above Sea Level Through 7,700 ft. Above Sea Level					
Model	Vent & Combustion Air-Inlet System Diameter (Inches)	Minimum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Maximum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Vent and Combustion Air-Inlet System Termination(s)	
PDV50-65	3	7	50	90° Elbows	–
PDV50-65	3	7	40	–	Concentric*
PDV50-65	4	7	100	90° Elbows	–
PDV65	4	8	40	90° Elbows	–
PDV75	4	8	50	90° Elbows	–

From 7,701 ft. Above Sea Level Through 10,200 ft. Above Sea Level					
Model	Vent & Combustion Air-Inlet System Diameter (Inches)	Minimum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Maximum Allowed Equivalent Vent & Combustion Air-Inlet Lengths – Each Pipe Run (Ft.)	Vent and Combustion Air-Inlet System Termination(s)	
PDV50-65	3	7	25	90° Elbows	–
PDV50-65	3	7	20	–	Concentric*
PDV50-65	4	7	100	90° Elbows	–

- One 90° elbow is approximately equivalent to 5 feet of pipe. One 45° elbow is approximately equivalent to 2.5 feet of pipe.
- * Use only Rheem 3 inch concentric termination.

In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice.

Rheem Water Heating • 101 Bell Road
Montgomery, Alabama 36117-4305 • www.rheem.com



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