

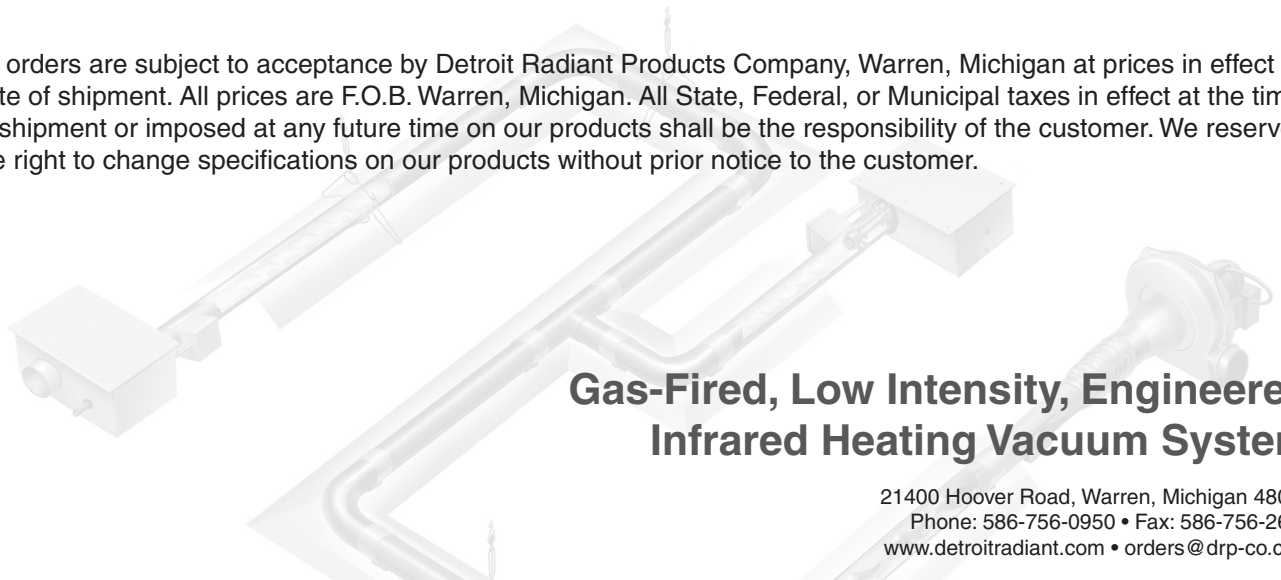
# HLV Series Packing List

Heaters & Accessories

**NOTE:** All items shown in this booklet are part of our "TBAC" price code category.

Effective 7-1-13

All orders are subject to acceptance by Detroit Radiant Products Company, Warren, Michigan at prices in effect at date of shipment. All prices are F.O.B. Warren, Michigan. All State, Federal, or Municipal taxes in effect at the time of shipment or imposed at any future time on our products shall be the responsibility of the customer. We reserve the right to change specifications on our products without prior notice to the customer.



## Gas-Fired, Low Intensity, Engineered Infrared Heating Vacuum System

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www.detroitradiant.com • orders@drp-co.com

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Replacement parts information is available online at [www.detroitradiant.com/parts](http://www.detroitradiant.com/parts) and in the product manual.

**HLV Series Marketing, Design and Installation DVD (MK-HLV)** is available upon request. One DVD is included with each HLV Series order.

The below key symbols (found within) designate the following:

SYMBOL	DESCRIPTION
†	UPS packages are charged dimensional, not physical weight.
<u>Underlined Item</u>	New item from prior accessory guide or heater price sheet.
Part No. in <b>BOLD</b>	An item that has further technical information available, ex.: spec sheet, instructions, etc.
Items in [****]	DRP product coding. For internal use only.

**Shipping Weight Notation:** Shipping weight is shown for each item.

The per item weight will typically be less when packaging multiple items on one order.

**NOTE:** Add-ons must be ordered as a separate line item and tagged to the appropriate heater. Additional accessories are available in the Tube Heater Packing List (LPKTH).

## BURNER PACKAGES [THLV]

Qty.	Model No.	BTU/H		Gas Type (circle one)
		High Fire	Low fire	
	HLV-40	40,000	40,000	Natural or Propane
	HLV-50	50,000	50,000	Natural or Propane
	HLV-60	60,000	50,000	Natural or Propane
	HLV-75	75,000	60,000	Natural or Propane
	HLV-80	80,000	64,000	Natural or Propane
	HLV-90	90,000	72,000	Natural or Propane
	HLV-100	100,000	80,000	Natural or Propane
	HLV-110	110,000	88,000	Natural or Propane
	HLV-120	120,000	96,000	Natural or Propane
	HLV-125	125,000	100,000	Natural or Propane
	HLV-140	140,000	112,000	Natural or Propane
	HLV-150	150,000	120,000	Natural or Propane
	HLV-170	170,000	136,000	Natural or Propane
	HLV-175	175,000	140,000	Natural or Propane
	HLV-180	180,000	144,000	Natural or Propane
	HLV-200	200,000	160,000	Natural or Propane

Shipping Weight = 30 lbs.

**Included:** 1) TP-21B\*, 1) TP-19B, 1) TP-105 with 4 clips, 1) GC-50 ball valve and 1) 24 in. stainless steel flexible gas connector.

### IMPORTANT

Each HLV burner must be ordered with one titanium combustion chamber (TR-C).

Titanium tube must be placed first tube after burner, regardless of burner BTU.

\*Models HLV 170, 175, 180 and 200 receive TP-220 Stainless Steel Clamp.

## TUBE AND REFLECTOR PACKAGES [ACTP]

### BLACK COATED TITANIUM COMBUSTION CHAMBER AND REFLECTOR PACKAGES

Qty.	Model No.	Description	
	TR-C	1) 10' x 4" Titan. tube, 1) TP-21B clamp, 2) TP-19B hanger, 1) TP-82 RCS	35 lbs.
	TR-C2	2) 10' x 4" Titan. tubes, 2) TP-21B clamps, 4) TP-19B hangers, 2) TP-82 RCS	70 lbs.
	TR-C3	3) 10' x 4" Titan. tubes, 3) TP-21B clamps, 6) TP-19B hangers, 3) TP-82 RCS	110 lbs.
	TR-C4	4) 10' x 4" Titan. tubes, 4) TP-21B clamps, 8) TP-19B hangers, 4) TP-82 RCS	145 lbs.

### BLACK COATED ALUMINIZED TUBE AND REFLECTOR PACKAGES

Qty.	Model No.	Description	
	10EA	1) 10' x 4" Alum. tube, 1) TP-21B clamp, 1) TP-19B hanger, 1) TP-82 RCS	35 lbs.
	20EA	2) 10' x 4" Alum. tubes, 2) TP-21B clamps, 2) TP-19B hangers, 2) TP-82 RCS	70 lbs.
	30EA	3) 10' x 4" Alum. tubes, 3) TP-21B clamps, 3) TP-19B hangers, 3) TP-82 RCS	110 lbs.
	40EA	4) 10' x 4" Alum. tubes, 4) TP-21B clamps, 4) TP-19B hangers, 4) TP-82 RCS	145 lbs.
	TR60	1) 5' radiant tube, 1) 5' reflector, 1) TP-21B clamp, 1) TP-19B hanger	20 lbs.

### UNCOATED HOT-ROLLED STEEL TUBE AND REFLECTOR PACKAGES\*

Qty.	Model No.	Description	
	10HRE	1) 10' x 4" HRT tube, 1) TP-21B clamp, 1) TP-19B hanger	35 lbs.
	20HRE	2) 10' x 4" HRT tubes, 2) TP-21B clamps, 2) TP-19B hangers	70 lbs.
	30HRE	3) 10' x 4" HRT tubes, 3) TP-21B clamps, 3) TP-19B hangers	110 lbs.
	40HRE	4) 10' x 4" HRT tubes, 4) TP-21B clamps, 4) TP-19B hangers	145 lbs.
	HRE-60	1) 5' HRT tube, 1) 5' reflector, 1) TP-21B clamp, 1) TP-19B hanger	20 lbs.

\* 150-200 MBH burners with hot-rolled steel tube package require an aluminized secondary combustion chamber (10EA) to be installed immediately downstream the Titanium stabilized (TR-C) combustion chamber.

**NOTE:** All clamps, hangers and other kit items are shipped with the tubes and reflectors.

## VACUUM EXHAUSTER PACKAGES [ACVS]

Qty.	Model No.	System BTU/H	HP	VA	Weight	Inlet Adapter	Output Adapter
	NC-7* (with panel assembly)	50-150	1/15	2.2	25 lbs.	N/A	N/A
	HLV-PB8 (with panel assembly)	50-275	1/2	7.6	65 lbs.	4" (V-55A)	4" (V-55A)
	HLV-PB9 (with panel assembly)	280-545	3/4	9.6	72 lbs.	5" (V-56A)	4" (V-55A)
	HLV-PB10 (with panel assembly)	550-750	1	11.4	78 lbs.	6" (V-57A)	5" (V-56A)

\*NC-7 is for non-condensing systems only. V-D is provided with NC-7 Pump, V-D-SS is provided with PB Series pumps.

**Included with each NC-7 Pump:** 1) V-D Damper, 1) TP-105 Endcap, 4) TP-106 Clips, 1) TP-21B 4" Clamp, 3) TP-651 Baffles and Silicone.





















**Included with each PB Series Pump:** 1) V-D-SS Stainless Damper, 1) TP-105 Endcap, 4) TP-106 Clips, 1) TP-220 SS 4" Clamp, 3) TP-651 Baffles, 2) Adapters, 2) 16" Isolation Boots, 4) Hose Clamps and Silicone.

**Note:** Vacuum pumps come with a pre-assembled exhauster panel which includes a post-purge timer, fuse protection and hook-up for 24V controls. All pumps have internal overload protection. Pumps are pre-wired for 120V pump input (220V Optional - PB Only), 24V control.





## ADD-ON / UPGRADE ITEMS

Qty.	Part No.	Description
	V-1SAO	Single Stage Add-On: Specify at time of order. Tag to each heater.
	3PH-AO	3 Phase Upgrade Package Add-On. Consult factory prior to ordering.

## HLV SERIES ACCESSORIES

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
 [ACVS] V-D	16 in. damper used to equalize the pressure on each leg of vacuum system. 16 gauge aluminized steel, 4 in. diameter with 1) tube clamp. A V-D must be used on each run from the pump (except the longest) that has a 5' ft. (or greater) length differential from any other branch in the system.	8 lbs.	 [ACVS] V-T	Tee fitting used to join two branches of a vacuum system. 16 ga. aluminized steel, 4 in. diameter tee with high temperature black coating. Includes: 1) tube clamp, 1) TP-19B, 3) end caps and 12) clips. Dimensions: 21 in. across top (with neither end swaged) by 13 in. <b>NOTE:</b> the 13 in. middle leg is swaged.	10 lbs.
 [ACTB] †REF-18	18 in. aluminum reflector. Includes 1) RCS, 1) end cap and 4) clips. Used to cover damper.	3 lbs.	 [ACVS] †V-RTE	.025 highly polished aluminum reflector used to cover a V-T or V-TI. Reflector assembly includes: left, right and center sections, 2) brackets and 15) screws.	5 lbs.
 [ACVS] V-DKIT	V-D (damper) and REF-18 (reflector) package.	11 lbs.	 [ACVS] V-TER	V-T package with V-RTE reflector package. See page 4 for proper application.	15 lbs.
 [ACTB] E6	Elbow - 6 in. radius, 90° bend, 4 in. diameter 16 ga. alum. steel with black coating, 1) tube clamp, 1) hanger, and 2) reflector end caps with 8) clips. Consult IOM for minimum distance from burner.	7 lbs.	 [ACVS] V-TI	In-line tee fitting used to join two branches of a vacuum system. 16 ga. aluminized steel, 4 in. dia. tee, with high temp. black coating. Includes: 1) tube clamp, 1) TP-19B, 3) end caps and 12) clips. Dimensions: 21 in. across top (with one end swaged) by 13 in. <b>NOTE:</b> the 13 in. middle leg is not swaged.	10 lbs.
 [ACTB] †RE	Reflector Elbow - 90° bend, with polished, one side bright, aluminum reflector elbow. Designed to fit atop one elbow (not included). Sq. dimension 27 in. x 27 in.	5 lbs.	 [ACVS] †V-RTE	.025 highly polished aluminum reflector used to cover a V-T or V-TI. Reflector assembly includes: left, right and center sections, 2) brackets and 15) screws.	5 lbs.
 [ACTB] REP	E6 Elbow package with standard RE reflector package.	12 lbs.	 [ACVS] V-TERI	V-TI and V-RTE packages. See illustration on page 4 for proper application.	15 lbs.
 [ACTB] TF1B	180° fitting, used to make a U-shaped heater configuration. 16 ga. aluminized steel, 4 in. dia. fitting with high temperature black coating. Also included: 1) tube clamp, 1) wire hanger, 2) reflector end caps, and 8) clips. Adds 14 in. to overall unit length, center to center 16 in. Consult IOM for minimum distance from burner.	11 lbs.	 [ACVS] V-CR	Cross fitting used to join three branches of a vacuum system. 16 ga. aluminized steel, 4 in. diameter cross with high temp. black coating. Includes: 1) tube clamp, 1) RCS, 4) end caps, and 16) clips. Swaged on one end of the four legs. Dim: 21 in. x 21 in.	12 lbs.
 [ACTB] RU	Reflector U designed to cover a TF1B fitting. 180° bend U-reflector for attachment to standard reflectors. Polished one side bright aluminum. One TP-82 RCS included. <b>NOTE:</b> reflectors cannot be rotated on a mounting angle upon installation of this RU fitting.	5 lbs.	 [ACVS] †V-RCR	Reflector assembly designed to cover V-CR cross fitting. Reflector is constructed .025 highly polished aluminum. Field assembled with aluminum gussets and pop rivets provided. Included are 4) center sections, 4) angle brackets, and 24) screws.	10 lbs.
 [ACTB] RUP	TF1B 'U' package with standard RU reflector accessories.	16 lbs.	 [ACVS] V-CRP	Vacuum Cross and Reflector package. Includes V-CR and V-RCR packages.	22 lbs.
 [ACTB] 45E	Elbow - 6 in. radius, 45° bend, 4 in. diameter, 16 ga. black coated aluminized steel, 1) tube clamp, 1) hanger, and 2) reflector end caps with 8) clips. Consult IOM for minimum distance from burner.	7 lbs.	 [ACVS] V-TTS	Tandem Tee Set. Designed to emulate in series burners. Includes: 1) V-TERI, 1) V-DKIT, 1) REP, 3) TP-21B clamps, 2) TP-19B hangers and 1) TP-82 RCS. Must attach to TR-C or a min. 10 ft. space between burner and elbow.	40 lbs.

## HLV SERIES ACCESSORIES

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
 [ACVS] V-TB	Turnbuckle for sloping condensing tailpipe. One piece required for each 10 ft. tube. Designed to fit standard "S" hook.	.5 lb.	 [ACTB] WVE-ALUM	Aluminum sidewall vent cap with flapper. WVE is to be used for sidewall venting applications. 4 in. diameter.	2 lbs.
 [ACVS] V-SMK	Vacuum pump sidewall mounting kit. Designed to support PB Series vacuum pumps installed on a sidewall application.	3 lbs.	 [ACVS] V-PAI	Powered air inlet used to bring in outside air for combustion. To be used on runs that exceed 20 ft. but are limited to 150 ft. 5 in. intake and a 6 in. exhaust adapter are included. 265 CFM, 115V, 50/60 HZ, auto-reset and thermal protection.	2 lbs.


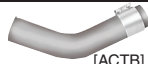
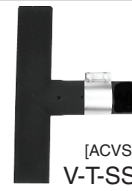





## STAINLESS STEEL TUBE AND REFLECTOR PACKAGES [ACTP]

QTY.	MODEL NO.	DESCRIPTION	QTY.
	10STP	1) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 1) TP-220, 1) TP-19B & 1) TP-82	38 lbs.
	20STP	2) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 2) TP-220, 2) TP-19B & 2) TP-82	76 lbs.
	30STP	3) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 3) TP-220, 3) TP-19B & 3) TP-82	120 lbs.
	40STP	4) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 4) TP-220, 4) TP-19B & 4) TP-82	157 lbs.
	STP-60	1) Type 304 5' x 4" S.S. tailpipe w/ alum. refl., 1) TP-220 & 1) TP-19B	22 lbs.

**NOTE:** Observe 18 in. top clearance on all condensing tailpipe not covered by a reflector. Minimum 60 ft. downstream of burner.

**NOTE:** STP packages & stainless steel REF accessories are not black coated unless otherwise specified.

## STAINLESS STEEL ACCESSORIES

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
 [ACVS] V-D-SS	16 in. damper used to equalize the pressure on each leg of a vacuum system. 304 stainless steel, 4 in. diameter with 1) stainless steel tube clamp. A V-D-SS must be used on each run from the pump (except the longest) that has a 5 ft. (or greater) length differential from any other branch in the system.	6 lbs.	 [ACTB] 45E-SS	Elbow - 6 in. radius, 45° bend, 4 in. diameter, 16 ga. 304 stainless steel, 1) tube clamp, 1) hanger, and 2) reflector end caps with 8) clips.	5 lbs.
[ACVS] V-DSKIT	V-D-SS (SS damper) and REF-18 (Alum. reflector) package.	10 lbs.	 [ACVS] V-T-SS	Tee fitting used to join two branches of a vacuum system. 304 stainless steel, 4 in. diameter tee. Includes: 1) stainless steel tube clamp, 1) TP-19B, 3) end caps and 12) clips. Dim: 21 in. across top (with neither end swaged) by 13 in. <b>NOTE:</b> The 13 in. middle leg is swaged. See illustration below.	2 lbs.
 [ACTB] E6-SS	304 grade stainless steel elbow. 6" radius, 90° bend, 4" diameter, 16 gauge with black coating. Includes (1) stainless steel tube clamp, (1) stainless steel hanger and (2) stainless steel reflector end caps with 8 clips.	8 lbs.	 [ACVS] V-TI-SS	In-line tee fitting used to join two branches of a vacuum system. 304 stainless steel, 4 in. dia. tee. Includes: 1) s.s. clamp, 1) TP-19B, 3) end caps and 12) clips. Dim: 21 in. across top (with one end swaged) by 13 in. <b>NOTE:</b> The 13 in. middle leg is not swaged. See illustration below.	11 lbs.
[ACTB] RE-SS**	Reflector Elbow - 90° bend. 304 stainless steel.	13 lbs.	[ACVS] V-RTE-SS**	304 grade stainless steel reflector used to cover a V-T-SS or a V-TI-SS.	16 lbs.
 [ACTB] TF1B-SS	180° bend, used to make a U-shaped heater configuration. 16 ga. 304 stainless steel, 4 in dia. fitting with high temperature black coating. Also included: 1) stainless steel tube clamp, 1) wire hanger, 2) reflector end caps, and 8) clips.	11 lbs.	 [ACVS] V-CR-SS	Cross fitting used to join three branches of a vacuum system. 304 stainless steel, 4 in. diameter cross. Includes: 1) stainless steel tube clamp, 1) RCS, 4) end caps and 16) clips. Swaged on one end of the four legs. Dim: 21 in. x 21 in.	13 lbs.
[ACTB] RU-SS**	Reflector 'U'. 304 stainless steel. 1) TP-82 RCS included. <b>NOTE:</b> Reflectors cannot be rotated on a mounting angle upon installation of this RU fitting.	16 lbs.	[ACVS] V-RCR-SS**	304 stainless steel reflector used to cover a V-CR-SS.	18 lbs.
			 [ACVS] V-CT	Condensate trap and 26 gauge venting tee used for condensate disposal on condensing systems. Required on vertical venting.	3 lbs.

### HLV Series Limited Warranty:

1 Year - Controls & Vacuum Pump.  
3 Years - Hot Rolled & Stainless Steel Tubes.  
5 Years - Aluminized & Titanium Tubes.  
10 Years - Burner.

### Extended Warranties:

CWO - Control Warranty Option (Qty. \_\_\_ p/ year, per burner, max. 4 years).  
EWO - Exchanger Warranty Option (Qty. \_\_\_ p/ year, per tube, max. 5 years).  
VPWO - Pump Warranty Option (Qty. \_\_\_ net p/ year, per pump, max. 4 years).

\*\* Aluminum reflector accessories are recommended for use with stainless steel accessory fittings when system is fitted with standard aluminum reflector sections. See page 3.

### PROPER TEE FITTING APPLICATION

