

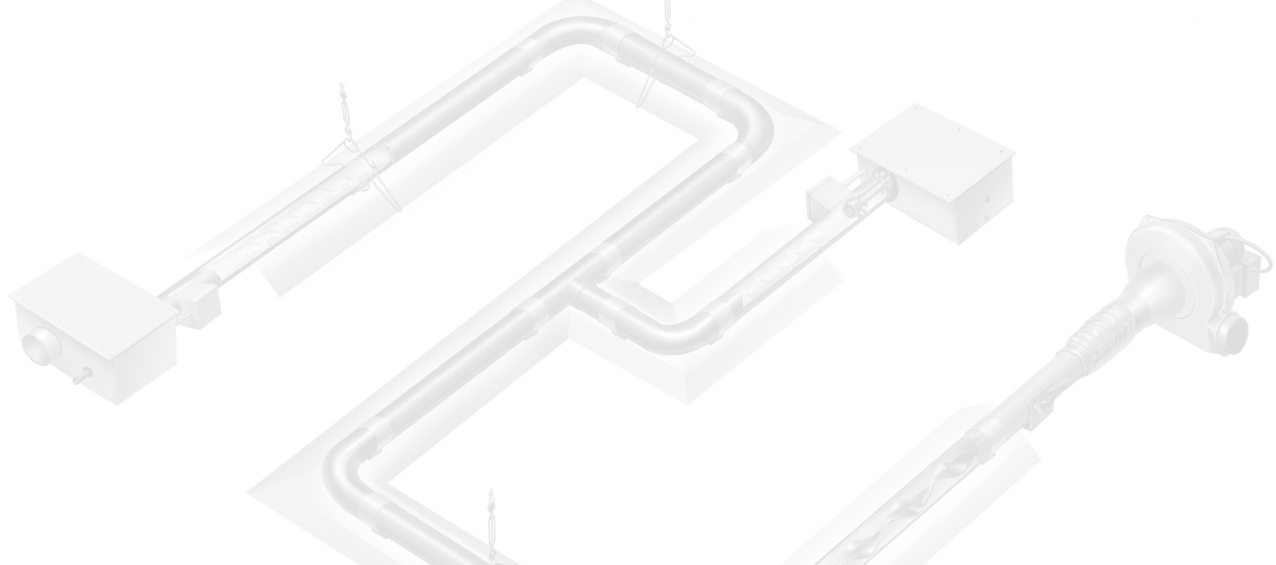
HLV Series Packing List

Heaters & Accessories

Effective 09-01-14

mm-dd-yy

All orders are subject to acceptance by Brant Radiant Heaters, Paris, Ontario at prices in effect at date of shipment. All prices are F.O.B. Paris, Ontario. All Provinces, 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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Replacement parts information is available online at www.reverberray.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 following key symbols (found within) designate the following:

| SYMBOL | DESCRIPTION |
|-------------------------|---|
| <u>Underlined Item</u> | New item or price, from prior accessory guide, or heater price sheet. |
| Part No. in BOLD | An item that has further technical information available, ex.: spec sheet, instructions, etc. |

Note: Add-ons must be ordered as a separate line item and tagged to the appropriate heater.

BULK PACK ORDERS Please TAG: Job xxxxx on purchase order to help us be made aware that an order can be bulk packed to destination. 10' skid, charge \$35.00 available on request.

BURNER PACKAGES [THLV]

| Qty. | Model No. | BTU/H High Fire | BTU/H Low fire | Gas Type (circle one) | List Price |
|------|-----------|--------------------|-------------------|-----------------------|------------|
| | 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, and 1) 30 in. Type1 Rubber Gas Hose.

Unitary Vacuum Heaters

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

BLACK COATED TITANIUM COMBUSTION CHAMBER AND REFLECTOR PACKAGES

| Qty. | Model No. | Description | List \$ |
|------|-----------|--|---------|
| | TR-C | 1) 10' x 4" Titan. tube, 1) TP-220 S.S clamp, 2) TP19B hanger, 1) TP-82 RCS | |
| | TR-C2 | 2) 10' x 4" Titan. tubes, 2) TP-220 S.S clamps, 4) TP19B hangers, 2) TP-82 RCS | |
| | TR-C3 | 3) 10' x 4" Titan. tubes, 3) TP-220 S.S clamps, 6) TP19B hangers, 3) TP-82 RCS | |

BLACK COATED ALUMINIZED TUBE AND REFLECTOR PACKAGES

| Qty. | Model No. | Description | List \$ |
|------|-----------|--|---------|
| | 10EA | 1) 10' x 4" Alum. tube, 1) TP-21B clamp, 1) TP-19B hanger, 1) TP-82 RCS | |
| | 20EA | 2) 10' x 4" Alum. tubes, 2) TP-21B clamps, 2) TP-19B hangers, 2) TP-82 RCS | |
| | 30EA | 3) 10' x 4" Alum. tubes, 3) TP-21B clamps, 3) TP-19B hangers, 3) TP-82 RCS | |
| | TR60 | 1) 5' radiant tube, 1) 5' reflector, 1) TP-21B clamp, 1) TP-19B hanger | |

UNCOATED HOT-ROLLED STEEL TUBE AND REFLECTOR PACKAGES*

| Qty. | Model No. | Description | List \$ |
|------|-----------|--|---------|
| | 10HRE | 1) 10' x 4" HRT tube, 1) TP-21B clamp, 1) TP-19B hanger | |
| | 20HRE | 2) 10' x 4" HRT tubes, 2) TP-21B clamps, 2) TP-19B hangers | |
| | 30HRE | 3) 10' x 4" HRT tubes, 3) TP-21B clamps, 3) TP-19B hangers | |
| | HRE-60 | 1) 5' HRT tube, 1) 5' reflector, 1) TP-21B clamp, 1) TP-19B hanger | |

* 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 | Inlet Adapter | Output Adapter | List \$ |
|------|--------------------------------|-----------------|------|------|------------------|-------------------|---------|
| | NC-7* (with panel assembly) | 50-150 | 1/15 | 2.2 | N/A | N/A | |
| | HLV-PB8 (with panel assembly) | 50-275 | 1/2 | 7.6 | 4" (V-55A) | 4" (V-55A) | |
| | HLV-PB9 (with panel assembly) | 280-545 | 3/4 | 9.6 | 5" (V-56A) | 4" (V-55A) | |
| | HLV-PB10 (with panel assembly) | 550-750 | 1 | 11.4 | 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.





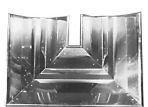

Included with each NC-7 Pump: 1) V-D Damper, 1) Silicone, 1) TP-105 Endcap, 4) TP-106 Clips, 1) HLV IOM, 1) TP-21B 4" Clamp and 3) TP-65I Baffles.







Included with each PB Series Pump: 1) V-D-SS Stainless Damper, 1) Silicone, 1) TP-105 Endcap, 4) TP-106 Clips, 1) TP-220 SS 4" Clamp, 3) TP-65I Baffles, 2) Adapters, 2) 16" Isolation Boots, 4) Hose Clamps and 1) HLV IOM.

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 prewired for 120V pump input (220V Optional - PB Only), 24V control.



V-1SAO = Single Stage Add-On: \$1.00


HLV SERIES ACCESSORIES

| PART NO. | DESCRIPTION | LIST \$ |
|--|---|---------|
|  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. | |
| REF-18 | 18 in. aluminum reflector. Includes 1) RCS, 1) end cap and 4) clips. Used to cover damper. | |
| V-DKIT | V-D (damper) and REF-18 (reflector) package. | |
|  E6 | Elbow - 6 in. radius, 90° bend, 4 in. diameter 16 gauge aluminized steel with black coating, 1) tube clamp, 1) hanger, and 2) reflector end caps with 8) clips. Consult IOM for minimum distance from burner. | |
|  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. | |
| REP | E6 Elbow package with standard RE reflector package. | |
| REP-45 | E6 Elbow package with standard RE reflector package. Mounted on a 45 degree angle. | |
|  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. | |
|  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. NOTE: reflectors cannot be rotated on a mounting angle upon installation of this RU fitting. | |
| RUP | TF1B 'U' package with standard RU reflector accessories. | |
|  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. | |

| PART NO. | DESCRIPTION | LIST \$ |
|--|--|---------|
|  V-T | Tee fitting used to join two branches of a vacuum system. 16 gauge 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. NOTE: the 13 in. middle leg is swaged. | |
|  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. | |
| V-TER | V-T package with V-RTE reflector package. See illustration on page 4 for proper application. | |
|  V-TI | In-line tee fitting used to join two branches of a vacuum system. 16 gauge 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 one end swaged) by 13 in. NOTE: the 13 in. middle leg is not swaged. | |
|  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. | |
| V-TERI | V-TI and V-RTE packages. See illustration on page 4 for proper application. | |
|  V-CR | Cross fitting used to join three branches of a vacuum system. 16 gauge aluminized steel, 4 in. diameter cross with high temperature 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. | |
|  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. | |
| V-CRP | Vacuum Cross and Reflector package. Includes V-CR and V-RCR packages. | |
| 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 minimum 10 ft. space between burner and elbow. | |

HLV SERIES ACCESSORIES

| QTY. | PART NO. | DESCRIPTION | LIST \$ |
|------|--|---|---------|
| |  V-TB | Turnbuckle for sloping condensing tailpipe. One piece required for each 10 ft. tube. Designed to fit standard "S" hook. | |
| |  V-SMK | Vacuum pump sidewall mounting kit. Designed to support PB Series vacuum pumps installed on a sidewall application. | |

| QTY. | PART NO. | DESCRIPTION | LIST \$ |
|------|--|--|---------|
| | WVE-ALUM | Aluminum sidewall vent cap with flapper. WVE is to be used for sidewall venting applications. 4 in. diameter. | |
| |  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. | |




STAINLESS STEEL TUBE AND REFLECTOR PACKAGES [ACTP]






| QTY. | MODEL NO. | DESCRIPTION | LIST \$ |
|------|-----------|--|---------|
| | 10STP | 1) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 1) TP-220, 1) TP-19B & 1) TP-82 | |
| | 20STP | 2) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 2) TP-220, 2) TP-19B & 2) TP-82 | |
| | 30STP | 3) Type 304 10' x 4" S.S. tailpipe w/ alum. refl., 3) TP-220, 3) TP-19B & 3) TP-82 | |
| | STP-60 | 1) Type 304 5' x 4" S.S. tailpipe w/ alum. refl., 1) TP-220 & 1) TP-19B | |

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 accessories are not black coated unless otherwise specified.

STAINLESS STEEL ACCESSORIES

| QTY. | PART NO. | DESCRIPTION | LIST \$ |
|------|--|---|---------|
| |  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. | |
| | V-DSKIT | V-D-SS (SS damper) and REF-18 (Alum. reflector) package. | |
| |  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. | |
| | RE-SS** | Reflector Elbow - 90° bend. 304 stainless steel. | |
| |  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. | |
| | RU-SS** | Reflector 'U'. 304 stainless steel. 1) TP-82 RCS included. NOTE: Reflectors cannot be rotated on a mounting angle upon installation of this RU fitting. | |

| QTY. | PART NO. | DESCRIPTION | LIST \$ |
|------|--|--|---------|
| |  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. | |
| |  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 swedged) by 13 in. NOTE: The 13 in. middle leg is swedged. See illustration below. | |
| |  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 swedged) by 13 in. NOTE: The 13 in. middle leg is not swedged. See illustration below. | |
| | V-RTE-SS** | 304 grade stainless steel reflector used to cover a V-T-SS or a V-TI-SS. | |
| |  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. Swedged on one end of the four legs. Dim: 21 in. x 21 in. | |
| | V-RCR-SS** | 304 stainless steel reflector used to cover a V-CR-SS. | |
| |  V-CT | Condensate trap and 26 gauge venting tee used for condensate disposal on condensing systems. Required on vertical venting. | |

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 (\$30 net p/ year, per burner, max. 4 years).
EWO - Exchanger Warranty Option (\$7 net p/ year, per tube, max. 5 years).
VPWO - Pump Warranty Option (\$94 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

