

# Olsen

Heating & Cooling Products

An ECR International Brand

## Highboy Oil Furnaces

### HML & HTL Front Breech

- Designed for maximum comfort
- Delivers up to 83% efficiency
- Clean and quiet operation
- Lifetime warranty on the heat exchanger

*Keeping families warm  
for more than 60 years.*



# A History of Quality

Although we started by producing horse-drawn carriages, automobiles and military equipment, ECR International expanded our design and manufacturing capabilities during World War II and "Olsen" quickly became a household word for quality furnaces.

From our factory in southwestern Ontario, we at ECR International continue our commitment to oil heat by engineering and manufacturing a full line of top-quality, high-efficiency residential oil furnaces.

The Olsen name continues to be synonymous with "superior, reliable oil heat" and the Highboy product line-up has been keeping families warm for more than 60 years.



## Comfort

The Olsen Highboy series of oil-fired furnaces provide the best value in heating comfort for your family. "Comfort" in knowing that you will provide the warmth your family needs. Multiple speed blowers allow airflow to be matched with the needs of your home eliminating "gusts" of hot or cold air and increasing overall comfort. Your family's comfort is further ensured due to our large washable filters that provide for greater air filtration and cleaner room air.

## Efficiency

Olsen's Highboy oil-fired furnace designs are capable of achieving up to 83% efficiency due to Olsen's unique heat exchanger design, high performance oil burners and increased fibre-reinforced foil faced cabinet insulation. The result is increased energy savings and lower fuel bills.

## Clean and Quiet Operation

Each Olsen Highboy furnace has a completely insulated combustion chamber to provide quiet operation and clean burning performance. The oil burner is equipped with a solenoid oil valve that ensures clean starts and quiet shut-downs of the burner.

## Reliability

Olsen Highboy furnaces are constructed with 100% welded, heavy-gauge steel heat exchangers that come standard with a limited lifetime warranty. Multi-speed blowers, high-quality motors and components all provide peace-of-mind for years of worry-free service. Strong 20-gauge cabinet panels feature a baked-on epoxy-based powder coating, resistant to scratching, peeling and corrosion, which protects your investment.

Olsen's **Limited Lifetime Warranty** is among the best in the industry! Every Olsen furnace comes with our guarantee to the original purchaser that the heat exchanger will be free from defects in materials and workmanship as long as you own the appliance...

**... or we'll supply a replacement heat exchanger free of charge!**



Our **Five-Year Parts Warranty** provides even more assurances. Olsen warrants to the original purchaser that any component of the furnace will be free from defects in materials and workmanship for a period of five full years...



**... or we'll supply a replacement part free of charge!**

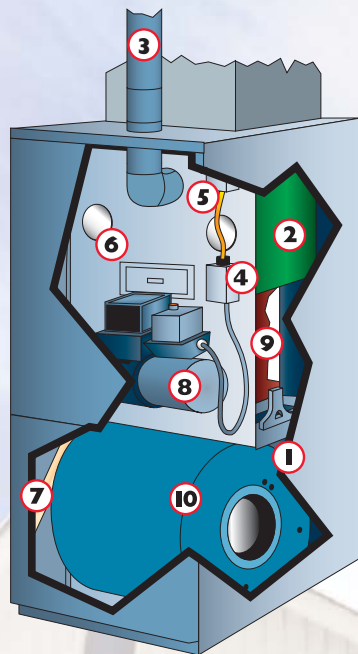
*\* Subject to the limitations set out in the warranty.*

# Features & Benefits

## of the Olsen Highboy Oil Furnace

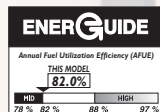
- 1 **Insulated Cabinet:** Heavy gauge panels are coated with a baked-on epoxy-based powder paint that resists scratching and are insulated with 1/2" thick fibre-reinforced foil-faced insulation that retains heat and quiets operation.
- 2 **Dual Pass Heat Exchanger:** The two paths slow the flue gases and reduce pressure drop thereby enhancing heat transfer. Our unique square heat exchanger design creates added flue gas turbulence, increasing efficiency. Each heavy gauge heat exchanger is precision made, 100% welded and tested for the highest possible quality.
- 3 **Barometric Draft:** Each furnace comes with a standard chimney vent draft regulator to provide a constant negative pressure for optimum chimney vent models.
- 4 **Fan Control Centre (HTL):** The fan control centre uses colour-coded wiring and is capable of accepting air conditioning. Field installation of a humidifier or electronic air cleaning accessories is possible.

**4a. Fan Control Centre (HML):** Electronic fan timer board controls the blower for delayed on/off operation that eliminates cold air start-up and maximizes heat utilization on shut-down. Wiring is colour coded, equipped with connections for easy air conditioning, humidifier or air cleaner installation. A terminal strip is also supplied for easy thermostat connections.

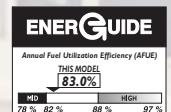


- 5 **Fan Limit (HTL):** Bi-metal sensing element controls the blower for delayed on/off operation that eliminates cold air start-up and maximizes heat utilization on shut-down.
- 5a. **High Limit (HML):** A snap disc limit is smartly located to eliminate potential overheating and premature heat exchanger fatigue.
- 6 **Dual Clean-Out Ports:** Large and easily accessible clean-outs within the vestibule make service and cleanings thorough and quick.
- 7 **Washable Filter System:** An extra large filtration area and washable filter are included with the furnace. This provides greater air filtration and cleaner room air.
- 8 **Oil Burners:** Beckett flame retention head burner includes factory supplied solenoid valve on pump for cleaner and quieter operation with reduced maintenance, 14,000-volt ignition, interrupted primary control and ball-bearing PSC motors reduce energy consumption. Optional Riello oil burners also available.
- 9 **Combustion Chamber:** Ceramic fibre combustion chamber ensures clean burner starts and stops, and provides for quiet operation of the furnace.
- 10 **Blower Assembly:** Direct or belt-drive blowers can be set up for multiple speeds allowing airflow to be matched with the needs of your home eliminating "gusts" of hot or cold air and increasing overall comfort. Removal of two bolts allows the assembly to slide out easily for maintenance.

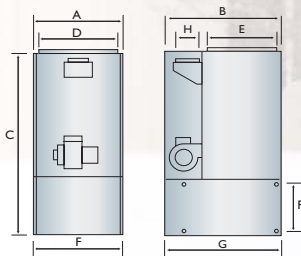
HML



HTL



- Front Breech
- Upflow
- Direct Drive only
- Firing Rates 59, 75, 86, 96 BTU/h (000's) output (Factory standard 75 output)
- DirectVent version available
- Air conditioning ready, up to 3.5 tons

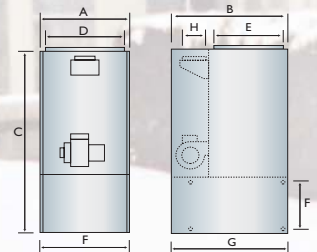


**HML Dimensions** (all measurements in inches)

Cabinet			Plenum Openings			Flue Dia (H)	Filter	Shipping Weight
Width (A)	Depth (B)	Height (C)	Supply Air (D x E)	Return Air (F x G) Bottom Bottom				
22	31	49 5/8	20 1/2 x 20	14 x 22	14 x 22	5*	16 x 25 x 1	250 lbs.



- Front Breech
- Upflow
- Direct and Belt Drive
- Firing Rates 79, 90, 101, 119 BTU/h (000's) output (Factory standard 101 output)
- DirectVent not available
- Air conditioning ready, up to 5 tons



**HTL Dimensions** (all measurements in inches)

Cabinet			Plenum Openings			Flue Dia (H)	Filter	Shipping Weight
Width (A)	Depth (B)	Height (C)	Supply Air (D x E)	Return Air (F x G) Bottom Bottom				
22	31	58	20 1/2 x 20	14 x 22		6	16 x 25 x 1	270 lbs.

\* - Chimney Vent 5", Direct Vent 4"

# Specifications - Highboy Oil Furnaces

(all specifications indicated are for factory standard production)

Model (Direct Drive)	HML 80C	HTL 100C**	HTL 100C 5 ton
BTU/h Input	91,000	119,000	119,000
BTU/h Output	75,000	101,000	101,000
Firing Rate - USGPH*	0.65	0.85	0.85
Burner Model (Beckett)	AF76BUHS	AF65XN	AF65XN
Nozzle (Factory Standard)	0.65/80A	0.85/80A	0.85/80A
Blower - Direct Drive	10-10 T	10-10	12-11 T
Max. CFM @ .20" WC SP-Dir.	1741	1610	1998
Max. CFM @ .50" WC SP-Dir.	1476	1445	1825
Cooling Capacity (tons)	3.5	3.5	5
Motor	1/2 HP PSC 4S	1/2 HP PSC 4S	1 HP PSC 4S
Temperature Rise	45-75°F	55-85°F	55-85°F
Filter	16" x 25" x 1"	16" x 25" x 1"	16" x 25" x 1"
Shipping Weight	250 lbs.	270 lbs.	270 lbs.
AFUE Rating	82%	83%	83%

Clearance to Combustibles (all measurements in inches)								
Model	Top	Bottom	Front	Rear	Side	Side 1	Flue 2	Enclosure
HML	1	0	1†	1	1	1	9	Closet
HTL	1	0	1†	1	1	1	9	Alcove

† 24 inches are required for servicing

\* Additional firing rates available. Please consult the Installation Manual for proper nozzle sizing.

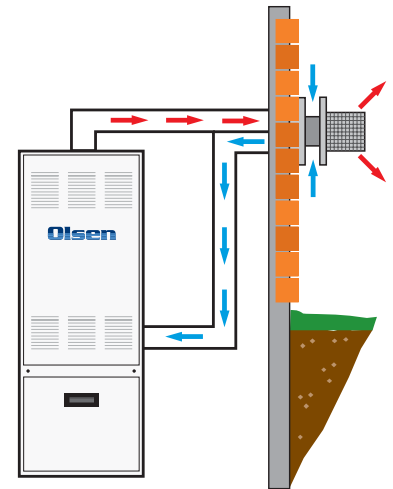
\*\* Also available in Belt Drive.



Direct Sidewall Venting is an effective alternate method of venting combustion products through an outside wall of the house, rather than up a traditional chimney. This method utilizes the burner to efficiently exhaust products of combustion from the heating equipment.

## FEATURES AND BENEFITS

- Direct Sidewall Vent allows for overall increase in installed appliance efficiency.
- The Olsen Direct Sidewall Vent kit has been designed for flexibility in installation. All vent-to-appliance adapters are included.
- Every Direct Sidewall Vent installation requires an Olsen Vent Terminal in addition to the venting kit described above. The Olsen Vent Terminal utilizes a two-pipe combustion air/exhaust gas configuration. Because outside air is used for combustion, the system provides greater efficiency and safety in new, tightly sealed houses.
- Only one wall opening is required for concentric vent.
- The burner provides the necessary pressure for adequate venting of flue products - no additional motors or controls are required.



## HML Heating Output & Burner Data – Direct Vent

Beckett AFII Series Oil Burners (for use with sidewall-vented units with or without outdoor combustion air)						
Furnace Model	Output (BTU/h)	Nozzle	Flow Rate	Burner Model	Pump Pressure	Head
HML 80CB2	65,000	0.50 / 60 A	0.55 USGPH	AFII-85	120 PSIG	FB0
	*77,000	0.60 / 60 A	0.65 USGPH	AFII-85	115 PSIG	FB3
	89,000	0.70 / 60 A	0.75 USGPH	AFII-85	115 PSIG	FB3

\* Factory standard production.

**ECR International**  
The **Single Source SOLUTION**  
for HVAC Products



Ask your installer about our central air conditioners and heat pumps!



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