

Slant/Fin

INTREPID

World class oil-fired boilers

**Your best choice for home heating
comfort, reliability and energy savings.**



**Superior
Performance
in good conditions
...or bad**



- Up to 86% Efficiency
- Swing open and removable door
- Top cleaning for easy service
- .75 to 3.35 GPH firing rate
- Cast-iron, wet base heat exchanger
- Hot water and steam models, with domestic hot water coil option
- Low draft loss

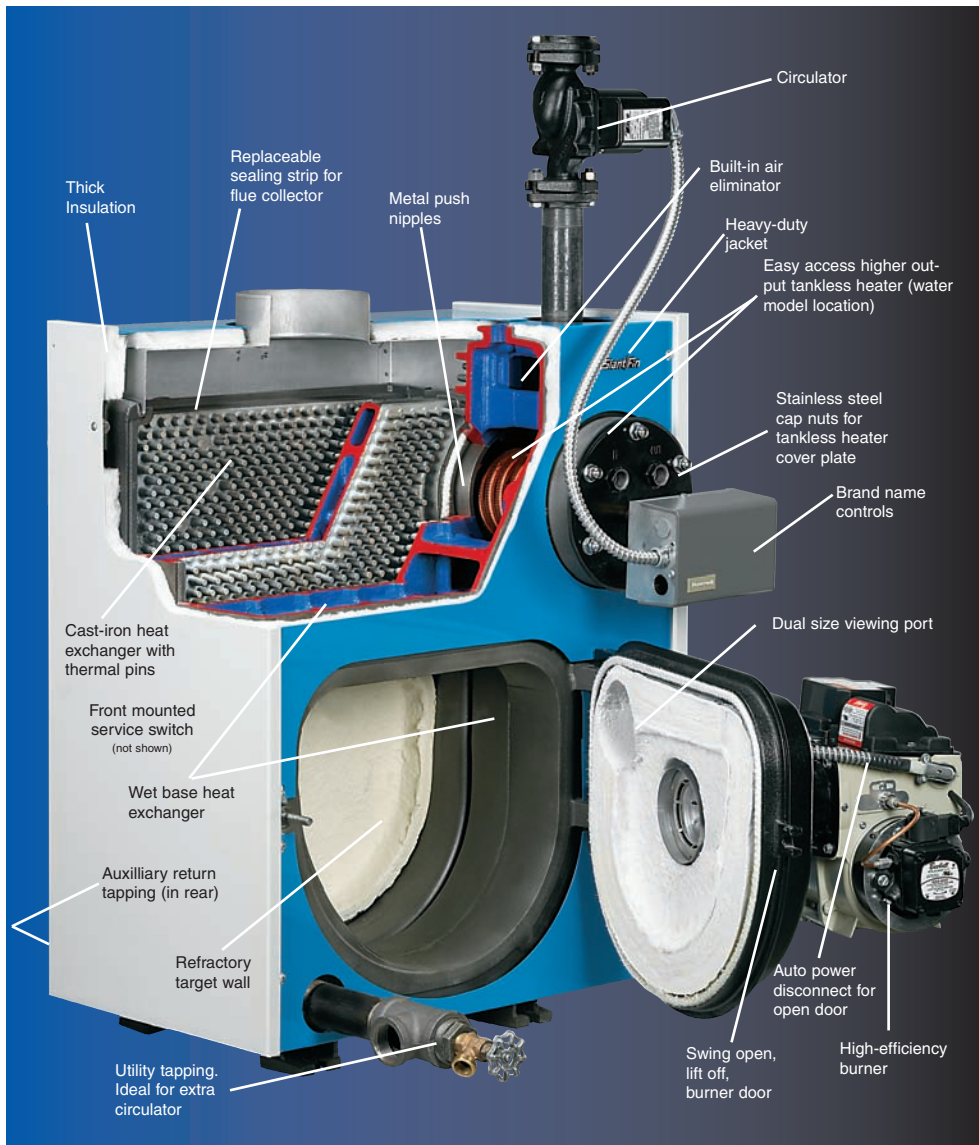
***Intrepid is one of the world's
best oil-fired boilers.***

Advanced design ensures superb performance, even during extreme seasonal operating conditions.

Intrepid represents years of research and development, aimed at producing a boiler that would perform with efficiency and reliability, even during seasonal extremes that threaten the performance of ordinary boilers. Intrepid can reduce your fuel bills by up to 30% or more, while providing years of dependable service.

The contoured shape of Intrepid's combustion chamber is computer-designed to support stable combustion. The uniquely configured heat exchanger has one of the lowest draft losses in the industry. Burners are configured for each specific model to provide smooth, clean, efficient operation, unaffected by reduced draft, low oil temperature or low air temperature.

Slant/Fin
Since 1949
Celebrating over 60 years of heating excellence



Lifetime limited warranty.

The Intrepid boiler is engineered and built for a long, dependable life. Hot water models are covered under Slant/Fin's lifetime limited warranty. Steam models have a limited ten-year warranty. Contact Slant/Fin for details.

Standard working pressure 30 PSI water, 15 PSI steam.
All boilers hydrostatically tested — A.S.M.E.

- P Packaged water boiler less tankless heater
- PT Packaged water boiler with tankless heater
- PPT Packaged water boiler with provision for tankless heater
- PZ Packaged steam boiler less tankless heater
- PZT Packaged steam boiler with tankless heater

*All packaged boilers are equipped as shown in Standard Equipment chart. In addition, the following models are provided with a blanket in the combustion area: water models TR-60 and TR-70; steam models TR-30, TR-40, TR-50, TR-60 and TR-70. All "KD" and "U" boilers are equipped with full combustion chamber, burner mounting plate and insulation, except that model TR-20 is equipped with blanket in combustion area.

OPTIONAL EQUIPMENT

Two-stage fuel pump.
Choice of alternate brand circulators and burners.

| STANDARD EQUIPMENT | P | PT | PPT | PZ | PZT |
|---|---|----|-----|----|-----|
| Assembled sections | x | x | x | x | x |
| Jacket with insulation | x | x | x | x | x |
| Target wall * | x | x | x | x | x |
| Pressure and temperature gauge | x | x | x | — | — |
| Pressure relief valves (ASME), in carton | x | x | x | x | x |
| Flame retention oil burner with nozzle, primary relay and cadmium sulfide flame detector | x | x | x | x | x |
| Draft regulator, in carton | x | x | x | x | x |
| Circulator: 1 1/4" (TR-20 thru TR-40) 1 1/2" (TR-50 thru TR-60) (No circulator supplied with TR-70) | x | x | x | — | — |
| Drain cock, in carton | x | x | x | x | x |
| Flue brush, in carton | x | x | x | x | x |
| Combination hi-limit control and circulator relay (TR-20 thru TR-60) | x | — | x | — | — |
| Tankless water heater | — | x | — | — | x |
| Provision for tankless water heater | — | — | x | — | — |
| Cover plate instead of tankless heater | — | — | x | x | — |
| Combination hi and low limit control, circulator relay (TR-20 thru TR-60) | — | x | — | — | — |
| Hi and low limit control (TR-70) | — | x | x | — | — |
| Hi-limit control (TR-70) | x | — | — | — | — |
| Pressuretrol with siphon, in carton | — | — | — | x | x |
| Burner mounting plate with swing out door | x | x | x | x | x |
| Burner mounting plate/insulation * | — | — | — | — | — |
| Inspection door | x | x | x | x | x |
| Service switch | x | x | x | x | x |
| Low water cutoff, No. 67 MM, installed | — | — | — | x | x |
| Steam trim, gauge and glass gauge in carton | — | — | — | x | x |
| Low limit control | — | — | — | — | x |

Intrepid steam boiler



A generous 3" supply tapping on steam models helps produce drier steam, resulting in quieter operation of your steam heating system.

TRDV sealed combustion models

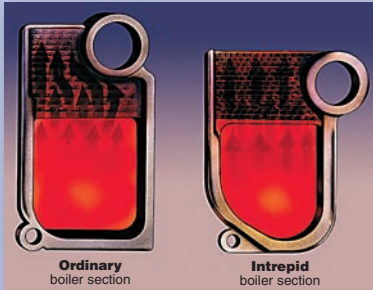


For installations without a chimney, Intrepid TRDV models vent directly to the outdoors. See Pub. No. TRDV-10.

Note: Basic Intrepid TR-Series boilers, described in this literature (Pub. TR-10), are not designed for direct vent applications.

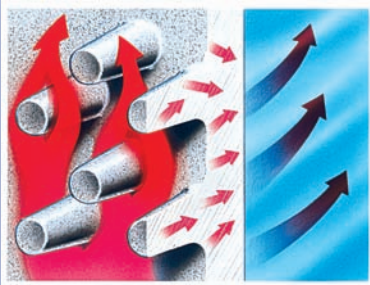
Incomparable Dependability.

Advanced design boiler sections minimize soot buildup.



Intrepid's push nipples are located to the side, out of the way of the flue gases. This unobstructed flue passage creates more uniform heat transfer, minimizes draft loss and reduces soot build-up.

The Intrepid boiler's draft loss is less than .02" w.c., one of the lowest in the industry—important for better performance and prolonged life.



The thermal pins in Intrepid's heat exchanger turbulate flue gasses and increase heat transfer surface area. This permits use of smaller, compact heat exchanger sections that generate more Btu's per section than ordinary boilers.



Intrepid allows for easy cleaning.

There's no better built oil-fired boiler than Intrepid. Heat exchanger sections, for example, are made of only the finest cast iron, finished to exact specifications on automated high precision machining centers. Final assembly of each boiler is performed by hand. Every boiler section is tested under pressure at least 8 times the normal residential operating pressure. Repetitive testing—individual sections, assembled heat exchanger and completed boiler, ensure the leak-free integrity of every boiler shipped.

Burner performance optimized for each specific model. Every burner factory tested.

The burner for each Intrepid boiler is custom manufactured to Slant/Fin specifications. It is engineered to provide smooth, clean, efficient operation under all job conditions.

For reliability, every burner is factory test fired before shipping for optimal performance. Final adjustments are easily made by the installer.

For dependability, metal push nipples; name brand controls and circulator pump.

Slant/Fin uses only metal push nipples that expand and contract with the individual boiler sections that they connect. No rubber gaskets. That could result in water leaking from the boiler. Dependable performance is further ensured with nationally known brands of controls and circulator pumps.

Installation is faster, service is easier with these special Intrepid features.

Intrepid's compact size and removable burner door allows it to fit through doors and stairwells with ease. A strong wooden crate protects the Intrepid from factory to basement. Packaged models come pre-wired with the burner mounted, ready for final setup. Controls are mounted up front for easy access. The circulator is prewired and bolted to the skid for shipping. Wiring is long enough for supply side or return mounting. For your convenience, all models include front and rear return tappings.

Burner door swings open, lifts off.

Intrepid's extra large door swings open for routine servicing. It also lifts off, making it easy to fit the boiler through tight spaces and down stairs.

Top cleanout is easy.

With the flue collector removed, it's easy to reach all of the heat exchanger surfaces with a flue brush for routine cleaning. Swing out door opens for easy servicing.

Easy access, higher output tankless heater coil.

Tankless cover plate is mounted on cast-iron extended flange. Stainless steel bolts and cap nuts permit easy removal of seal or coil. Deeper well accommodates longer coil to maximize output of domestic hot water



Advanced design cast-iron boiler sections



Extended hot water heater coil performs better.



Metal push nipples outperform rubber gaskets.



Easy access to heating coil.



Burner door designed to swing open or lift off.

INTREPID

World class cast-iron oil-fired boilers

| Boiler Model No. | I=B=R Burner Capacity Oil Input | | D.O.E. Heating Capacity MBH | | I=B=R Burner Net Ratings | | | I=B=R Chimney Size | | A.F.U.E. % | | Dimensions (inches) | | | | | Boiler section | | Tankless Heater GPM* | |
|--------------------|---------------------------------|---------|-----------------------------|------------------|--------------------------|------------|---------------|-------------------------------------|------------------------------|------------|-------|---------------------|---------------------|---------------|------------------------------|--------------------|----------------|--|----------------------|-------|
| | GPH† | BTUH | Water | Steam | Water MBH‡ | Steam MBH‡ | Steam Sq. Ft. | Nom. Rect. x Height§ (in x in x ft) | I.D.Round x Height (in x ft) | Water | Steam | Boiler Length "A" | Front to Flue c "B" | Flue Dia. "C" | Return Circulator Flange "D" | Overall Length "E" | | | Water | Steam |
| | | | | | | | | | | | | | | | | | | | | |
| TR-20 | 0.75 | 105,000 | 91 | — | 79 | — | — | 8 x 8 x 15 | 5 x 15 | 83.50 | — | 11½" | 8½" | 6" | 1" | 24" | 2 | | 2.20 | — |
| TR-30H | 1.00 | 140,000 | 121 | — | 105 | — | — | 8 x 8 x 15 | 6 x 15 | 86.00 | — | 14½" | 10½" | 6" | 1" | 27" | 3 | | 3.00 | — |
| TR-30 [®] | 1.10 | 154,000 | 134 | 134 | 117 | 101 | 421 | 8 x 8 x 15 | 6 x 15 | 84.85 | 84.15 | 14½" | 10½" | 6" | 1" | 27% | 3 | | 3.20 | 3.00 |
| | 1.25 | 175,000 | 151 | — | 131 | — | — | 8 x 8 x 15 | 6 x 15 | 83.50 | — | 14½" | 10½" | 6" | 1" | 27% | 3 | | 3.40 | — |
| TR-40H | 1.50 | 210,000 | 182 | 179 | 158 | 134 | 558 | 8 x 8 x 15 | 6 x 15 | 86.00 | 84.00 | 18½" | 11½" | 7" | 1" | 31" | 4 | | 3.80 | 3.40 |
| TR-40 [®] | 1.60 | 224,000 | 195 | 195 | 170 | 146 | 608 | 8 x 8 x 15 | 7 x 15 | 84.45 | 83.80 | 18½" | 11½" | 7" | 1" | 31" | 4 | | 3.90 | 3.50 |
| | 1.80 | 252,000 | 218 | — | 190 | — | — | 8 x 8 x 15 | 7 x 15 | 83.33 | — | 18½" | 11½" | 7" | 1" | 31" | 4 | | 4.15 | — |
| TR-50H | 2.00 | 280,000 | 243 | 239 | 211 | 179 | 746 | 8 x 8 x 15 | 7 x 15 | 86.00 | 84.00 | 21½" | 13½" | 8" | 1½" | 34½" | 5 | | 4.40 | 3.90 |
| TR-50 [®] | 2.10 | 294,000 | 256 | 255 | 223 | 191 | 796 | 8 x 8 x 15 | 8 x 15 | 84.06 | 83.45 | 21½" | 13½" | 8" | 1½" | 34½" | 5 | | 4.40 | 4.00 |
| | 2.35 | 329,000 | 272 [†] | — | 237 | — | — | 8 x 12 x 15 | 8 x 15 | — | — | 21½" | 13½" | 8" | 1½" | 34½" | 5 | | 4.70 | — |
| TR-60 [®] | 2.60 | 364,000 | 298 [†] | 298 [†] | 259 | 224 | 933 | 8 x 12 x 15 | 10 x 15 | — | — | 25" | 15½" | 8" | 1½" | 37½" | 6 | | 4.90 | 4.50 |
| | 2.85 | 399,000 | 327 [†] | — | 284 | — | — | 8 x 12 x 15 | 10 x 15 | — | — | 25" | 15½" | 8" | 1½" | 37½" | 6 | | 5.20 | — |
| TR-70 [®] | 3.10 | 434,000 | 352 [†] | 354 [†] | 306 | 266 | 1108 | 8 x 12 x 15 | 10 x 15 | — | — | 28½" | 16½" | 9" | — | 41½" | 7 | | 5.45 | 5.00 |
| | 3.35 | 469,000 | 381 [†] | — | 331 | — | — | 8 x 12 x 15 | 10 x 15 | — | — | 28½" | 16½" | 9" | — | 41½" | 7 | | 5.70 | — |

* Add Suffix: (P)Packaged water boiler less tankless heater, (PT)Packaged water boiler with tankless heater, (PPT)Packaged water boiler with provision for tankless heater, (PZ)Packaged steam boiler less tankless heater, (PZT)Packaged steam boiler with tankless heater.

† Ratings apply to the use of light oil at 140,000 Btu per gallon, and a .02% draft (negative pressure) over the fire.

‡ The net I=B=R output ratings shown are based on an allowance for piping and pickup of 1.15 (water) or 1.33 (steam). D.O.E. capacity gross output is divided by the allowance to obtain net rating.

§ The manufacturer should be consulted before selecting a boiler for unusual piping and pickup requirements such as intermittent system operation, extensive piping, etc.

¶ Nominal clay tile liner dimensions.

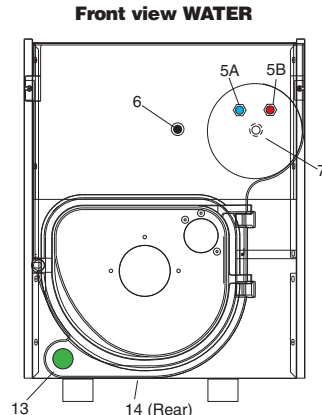
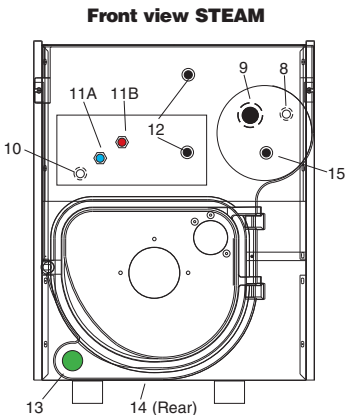
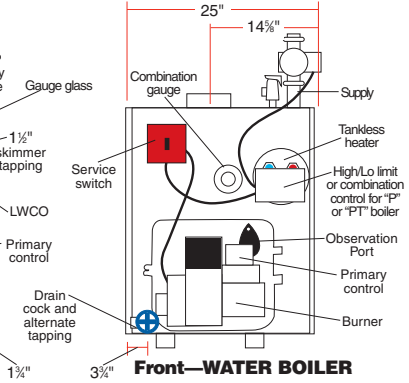
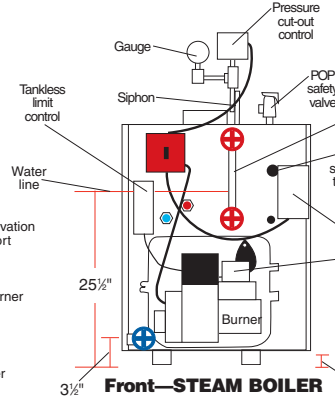
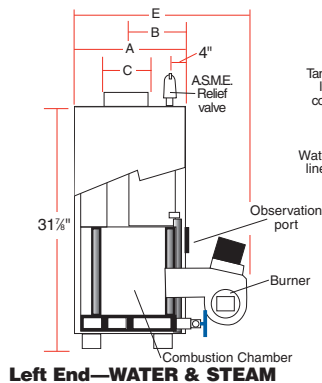
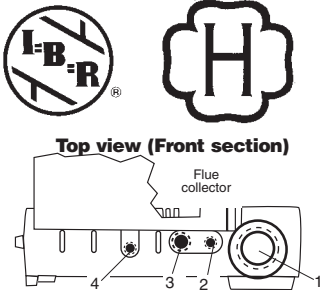
** Tankless heater rating based on intermittent draw.

¶ Water boiler models TR-30, TR-40, TR-50, TR-60 and TR-70 have two firing rates. The boiler is factory shipped at the lower firing rate. To obtain the higher firing rate, refer to the Intrepid boiler installation instructions for the appropriate field adjustments.

I.B.R. gross output.

⊘ Collar is oblong, will fit 6" diameter nominal connector.

NOTE: All boilers under 300,000 Btu/h input are tested and rated for capacity under the U.S. Department of Energy (D.O.E.) Test Procedures for Boilers.



| Tapping Location | STEAM BOILER | WATER BOILER |
|------------------|---|-------------------------------------|
| 1 | 3" supply | 1½" supply |
| 1A | 2" supply tapping (rear section of L-50, L-60 & L-70 models only) | — |
| 2 | Second ¼" siphon, pressure gauge & pressure cut-out | ¾" air vent or expansion tank |
| 3 | ¾" steam safety valve | ¾" water relief valve |
| 4 | ¼" siphon, pressure gauge & pressure cut-out | — |
| 5A | — | ½" tankless inlet |
| 5B | — | ½" tankless outlet |
| 6 | — | ¼" pressure temp. gauge |
| 7 | — | ½" hi limit, hi/lo or comb. control |
| 8 | ¾" low water cut-off, alternate | — |
| 9 | 1½" skimmer tapping | — |
| 10 | ¾" low limit for tankless | — |
| 11A | ½" tankless inlet | — |
| 11B | ½" tankless outlet | — |
| 12 | ¾" steam gauge glass & 67 LWCO | — |
| 13 | 1½" return & ¾" drain cock | 1½" return & ¾" drain cock |
| 14 | 1½" condensate return | 1½" alternate return |
| 15 | ¾" zone tapping | — |

Slant/Fin

SLANT/FIN CORPORATION, Greenvale, NY 11548 • Phone: (516) 484-2600
 FAX: (516) 484-5921 • In Canada: Slant/Fin LTD/LTEE, Mississauga, Ontario
 www.slantfin.com

©Slant/Fin Corp. 2011. Printed in the U.S.A. 111. Publication No. TR-10.