

BIASI

COMFORT MADE IN ITALY

# Product Guide

Effective June 16th, 2019

# Terms and Conditions

Effective: June 16th, 2019

PRICES: All prices quoted herein are in US Dollars, supersede all prior quotations and are subject to change without notice.

All quotations made and orders accepted are upon the express provision that the prices to be charged are those in effect at the time of shipment.

Prices from this product selection guide are for local delivery from established wholesale customers and are not to be reproduced in any form in print or electronic medium.

No obligation is assumed by this corporation to sell, to anyone holding this book, any of the items listed herein at the prices stated.

TERMS: Standard terms are Net 30. Payment is due 30 days from the date of invoice. Late payments are subject to a 2% interest charge compounded monthly and will result in credit hold. New orders will not be shipped until past due invoices are paid in full.
FREIGHT; Freight allowances are specified and distributed on separate discount structure sheets. Freight will be prepaid and added to invoice.

ACCEPTANCE OF ORDERS: Your acceptance, in writing, of our quotation constitutes a contract subject only to the approval, in writing, of QHT's accounts controller at our office in Portsmouth, New Hampshire.

All orders are subject to final approval by our accounts controller. If, in our sole judgement, the financial condition of the buyer warrants such action, we shall have the absolute right, at any time, on any filled or unfilled portion of any order with the buyer, to alter or withdraw or fix limits of credit extended, or to require cash payment before delivery or satisfactory security in advance, without releasing the buyer's obligation to accept. No failure of seller to exercise any right accruing from any default of buyer shall impair seller's rights in any case of subsequent default of buyer.

Cancellation of orders, or any part thereof, will not be effective unless accepted by QHT in writing over the signature of our accounts clerk at our office at Portsmouth, New Hampshire.
No waiver by either party of any default shall be deemed a waiver of subsequent default. We shall not be responsible for any claim of damages for any errors in executing oral instructions.

TAXES: Buyer shall pay any Federal, State, Municipal or Local Excise, manufacturers, sales or use taxes which are or may hereafter be enacted or levied upon products sold by QHT.

DELIVERY: Delivery dates are estimated only and not guaranteed under any conditions whatsoever. QHT shall be in no case responsible for any failures or delays, in whole or in part, in manufacturing, making shipments or deliveries, or otherwise caused by any conditions, of any nature whatsoever, whether in or beyond our control, and in no event for any damages whatsoever. All orders are accepted subject to delays on account of government regulations, strikes, accidents, or other causes beyond our control.
The responsibility of this company ceases upon delivery of goods in good order to transportation companies.

CLAIMS: As all goods are shipped at buyer's risk. They should be carefully examined before signing delivery receipts. If transportation company tenders delivery of goods in bad order, buyer should insist on carrier's agent to make notations of conditions on freight bills, thus enabling buyer to secure prompt payment of transport or product claims filed by him for value of damaged material.

CANCELLATION & ORDER TERMINATION: If buyer seeks to terminate any part or all of an order prior to delivery, buyer shall contact QHT, Inc., in writing at once. In any event, no order or part thereof shall be subject to cancellation or termination by buyer without QHT, Inc., prior written consent. Cost of special fabricated material or parts in a work-in-process state at time of requested cancellation will be charged to the buyer.

RETURNED GOODS: Goods must not be returned except by special permission, and when so returned will be subject to a deduction of 20% for re-handling. Return goods will only be accepted within 180 days of original purchase. All transportation charges, including freight and cartage, will be paid by the shipper. Material made on special order is not subject to return.

MODIFICATION: This price sheet contains all the terms an conditions with respect to the purchase and sale of the goods stated herein and the same may not be altered, modified, waived, abandoned or terminated in any respect whatsoever unless and except in writing signed by QHTinc.

All written quotations automatically expire, unless accepted within 30 days of the date quoted, unless otherwise stipulated.

QHT INCORPORATED

*The New Style of Warmth*

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Floor Standing Boilers

B10 BOILER SYSTEM

The BIASI B10 Boiler with its triple pass cast iron design and low water content, supplies heat quickly to the heating zones and hot water tank resulting in lower emissions and reduced fuel usage. Its ASME, CUL, and Energy Star certifications attest to its safety, fuel efficiency, and durability.

Utilizing pressure-fired burners, combined with electronic water temperature reset and low water control, the BIASI B10 will reduce fuel consumption by up to forty percent over conventional single pass, "pin-type" boilers with DHW tankless coils.

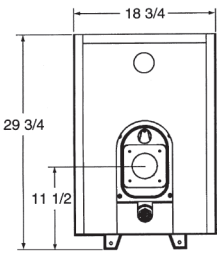
The BIASI B10 is easy to install and service since all the piping and safety components are located behind the boiler, permitting easy access to the burner and heat exchanger in the front of the boiler.

You'll enjoy confidence from the BIASI B10 limited lifetime warranty as well as its capability to be easily converted from oil to gas or vice versa simply by changing the burner.



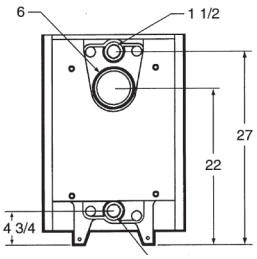

B10 Series Boiler
up to 87% AFUE














| Boiler Model # | Heating Capacity MBH | Gross Input Burner Capacity | | Net Output Oil (MBH) | Efficiency | | Water Content (Gal.) | Length (Inches) | Weight (Lbs.) |
|---|---|---|---|---|---|---|---|---|---|
| | | OIL (GPH) | GAS (MBH) | | OIL (%) | GAS (%) | | | |
| B10/3 | 61 | 0.51 | 70 | 53 | 87.2** | 84* | 3.5 | 15.5 | 249 |
| B10/4 | 94 | 0.78 | 108 | 82 | 87.1** | 84* | 4.7 | 19.5 | 308 |
| B10/5 | 127 | 1.06 | 146 | 110 | 87.0** | 84* | 5.7 | 23.5 | 367 |
| B10/6 | 160 | 1.33 | 184 | 139 | 86.9* | 84* | 6.7 | 27.5 | 427 |
| B10/7 | 193 | 1.61 | 222 | 168 | 86.9* | 84* | 7.7 | 31.5 | 486 |
| B10/8 | 226 | 1.88 | 260 | 197 | 86.8* | 84* | 8.8 | 35.5 | 546 |
| B10/9 | 256 | 2.13 | 294 | 223 | 86.8* | 84* | 9.9 | 39.5 | 606 |

(1) The burner input is based on oil with a heat value of 140,000 BTU/Gal. - (2) The net output ratings shown are based on piping and pick-up allowance of 1.15. - (3) The efficiency ratings are based on a combustion condition of 12.5% $CO_2$. (4) *NOT Energy Star Approved. **Energy Star Listed

ENERGY STAR

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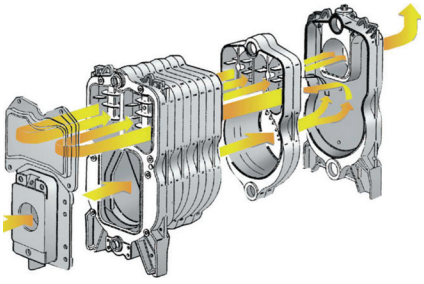


A 3-pass design is the most efficient way to get the maximum amount of heat from the fuel. It contains three times as much interior heating surface compared to a single-pass boiler.

## Technical Advantages

- Energy Star and CUL Listed
- Flex Fuel - Gas or Oil Burner Compatible
- Efficient Triple Pass Boiler Design
- ASME Rated to 58 PSI
- GG20 Cast-Iron Construction
- Direct Vent Capability (Oil/Gas)
- Limited Lifetime Warranty on Boiler Block

# BIASI B10 (Oil or Gas Fired) Boilers and Burners

## Non-Packaged Boiler and Casing Less Control Kit and Burner

| Boiler | AFUE (%) | Heat Capcity (MBH) | Net Output (MBH) | QHT ORDER # | List |
|---|---|---|---|---|---|
| | | Oil | Oil | | |
| B10/3 | 87.2 | 61 | 53 | B10/3+CASE | $1,482 |
| B10/4 | 87.1 | 94 | 82 | B10/4+CASE | $1,628 |
| B10/5 | 87.0 | 127 | 110 | B10/5+CASE | $1,887 |
| B10/6 | 86.9 | 160 | 139 | B10/6+CASE | $2,350 |
| B10/7 | 86.9 | 193 | 168 | B10/7+CASE | $2,749 |
| B10/8 | 86.8 | 226 | 197 | B10/8+CASE | $3,317 |
| B10/9 | 86.8 | 256 | 223 | B10/9+CASE | $3,736 |

## B10 Control Kit Options (One Must be Ordered for Each Boiler)

| Control Kit | Description | QHT ORDER # | List |
|---|---|---|---|
| Honeywell L7248 | Includes Honeywell L7248 High Limit and boiler trim components | B/10 KIT ASY L7248 | $457 |
| Hydrolevel 3250 | Includes Hydrostat 3250 High Limit / LWCO / Boiler Temperature reset and boiler trim components | B/10 KIT HYDRO 3250 | $306 |
| Beckett Aquasmart | Includes Aquasmart High Limit / LWCO / Boiler Temperature reset and boiler trim components | B/10 KIT ASY AQSMART | $354 |

Each control kit includes: The high limit specified, sensor, immersion well, 30 psi relief valve, tridicator, 3/4" x 3" nipple, 3/4" 90, 3/4" boiler drain, and a cera-fiber pad for the floor of the combustion chamber.

## Assembled Oil Burners

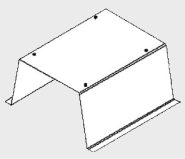
| Oil Burners | Manufacturer | B-10 Boiler | QHT ORDER # | List |
|---|---|---|---|---|
| R40 -F3 | Riello | 3,4 | R-C8511406 | $773 |
| R40 -F5 | | 5,6,7 | R-C8512442 | $816 |
| R40 -F10 | | 8,9 | R-C8514168 | $1,056 |
| NEC1301 (AFG) | Beckett | 3 | NEC1301 | $780 |
| NEC1302 (AFG) | | 4 | NEC1302 | $780 |
| NEC1303 (AFG) | | 5 | NEC1303 | $780 |
| NEC1304 (AFG) | | 6,7 | NEC1304 | $780 |
| NEC1101 (NX) | | 4,5 | NEC1101 | $841 |
| NEC1102 (NX) | | 3 | NEC1102 | $841 |
| NEC1103 (NX) | | 6 | NEC1103 | $841 |
| EZ -1 HP | Carlin | 3,4,5,6 | EZ-97550J2. | $789 |
| EZ -1 HP W/COVER | | 3,4,5,6 | EZ-97550A | $867 |

## Assembled Gas Burners

| Gas Burners ** | Manufacturer | B-10 Boiler | QHT ORDER # | List |
|---|---|---|---|---|
| R120 Nat | Riello | 3,4 | R-20081465 | $1,452 |
| R120 Propane | | 3,4 | R-20081462 | $1,452 |
| R200 Nat | | 5,6 | R-20081472 | $1,529 |
| R200 Propane | | 5,6 | R-20081470 | $1,529 |
| R400 Nat | | 7,8,9 | R-20081477 | $1,595 |
| R400 Propane | | 7,8,9 | R-20081476 | $1,595 |
| EZ-GAS * | Carlin | 3 | EZ-98864FR13 | $1,345 |
| EZ-GAS * | | 4 | EZ-98864FR14 | $1,345 |
| EZ-GAS* | | 5,6 | EZ-98864FR15 | $1,345 |
| EZ-GAS W/COVER * | | 3 | EZ-98864FRC3 | $1,601 |
| EZ-GAS W/COVER * | | 4 | EZ-98864FRC4 | $1,601 |
| EZ-GAS W/COVER * | | 5,6 | EZ-98864FRC5 | $1,601 |

* NOTE: Please Specify Gas Type and Boiler Size when Ordering.
** All Gas Burners are supplied with a 6" Double Acting Barometric Damper and Spill Switch.

## Item Accessories

| | Items | Description | QHT ORDER # | List |
|---|---|---|---|---|
|  | Boiler Stand | STEEL STAND INCLUDING LEVELING FEET. CAN BE USED WITH THE B10-3,4,5 BOILER. | FB-STAND | $230 |
| | Hydro level Outdoor Sensor | HYDROLEVEL OUTDOOR SENSOR KIT FOR FUEL SMART HYDROSTATS | C-0S 100 | $50 |
| | Beckett Air Boot | BECKETT NX- FRESH AIR ADAPTOR | NEC -NX AIR BOOT | $40 |
| | Riello Air Boots | AIR BOOT FOR RIELLO F3/F5 | R -3002761 | $43 |
| | | AIR BOOT FOR RIELLO F1O/F15/F20 | R -3002762 | $67 |
| | Carlin Air Boot | AIR BOOT FOR CARLIN EZ1 GAS/OIL BURNERS | EZ1-BOOT | $48 |
| | Hydrolevel Control | HYDROSTAT 3250PLUS CONTROL | C-H3250R | $207 |
| | Hydrolevel 48" Sensor | HYDROSTAT 48" SENSOR | C-H48 | $26 |
| | Hydrolevel Well | HYDROSTAT 3/4" ELECTRO-WELL W/GROUND | C-H205G | $16 |

The BIASI SG PRO Series is a triple pass cast iron design which enables fuel to be burned more efficiently while reducing emissions of NOx. The SG's heat exchanger re-circulates exhaust gases to cool the burner's flame, resulting in less pollutants, lower emissions, and reduced heat and hot water costs.

The SG PRO Series is approved for gas, oil burners.

Output ranges from 109-257 MBH. The plug and play Hydrostat 3250 Plus Touch Panel Control with optional outdoor reset further increases fuel savings. You also have the ability to fine tune the boiler in realtime with "Plug & Play" cabling and a user-friendly touch panel control.

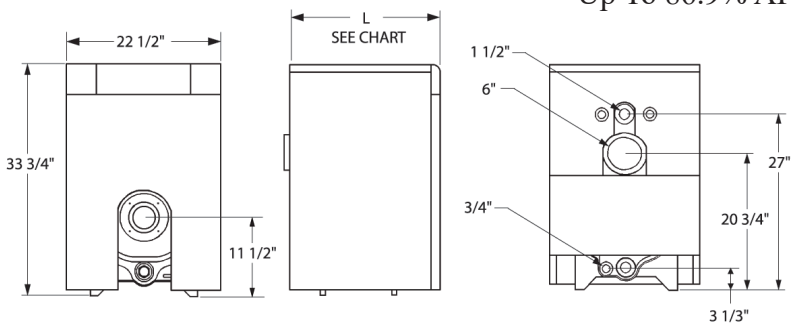
The SG PRO Series is designed for heavier systems such as radiators or radiant floors. It is easy to install and maintain since the piping and safety components are hidden behind the boiler. You have easy access to the control panels, burner, and heat exchanger that are located in the front of the boiler.

You'll enjoy the peace of mind from the BIASI SG limited lifetime warranty as well as it'f capability to be easily converted from oil to gas or vice versa simply by changing the burner.



SG Pro Series Boiler
Up To 86.9% AFUE






| Boiler Model # | Sections # | Gross Input Burner Capacity | | Heating Capacity | Net Output | Efficiency | | Water Content (Gal.) | Length (Inches) | Weight (Lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | OIL (GPH) | GAS (MBH) | OIL (MBH) | Oil (MBH) | OIL (%) | GAS (%) | | | |
| SG 2 | 2 | 0.65 | 91 | 79 | 69 | 86.9 | 85 | 6.9 | 16.7 | 264 |
| SG 3 | 3 | 0.91 | 140 | 109 | 95 | 86.9 | 85 | 7.7 | 21.8 | 341 |
| SG 4 | 4 | 1.22 | 182 | 147 | 128 | 86.9 | 85 | 9.6 | 26.9 | 418 |
| SG 5 | 5 | 1.52 | 224 | 183 | 159 | 86.8 | 85 | 11.3 | 32.1 | 506 |
| SG 6 | 6 | 1.83 | 266 | 220 | 191 | 86.8 | 85 | 13.1 | 37.2 | 605 |
| SG 7 | 7 | 2.14 | 315 | 257 | 224 | 86.8 | 85 | 14.9 | 42.3 | 704 |

(1) The burner input is based on oil with a heat value of 140,000 BTU/Gal. - (2) The net output ratings shown are based on piping and pick-up allowance of 1.15 (3) The efficiency ratings are based on a combustion condition of 12.5% $CO_2$.

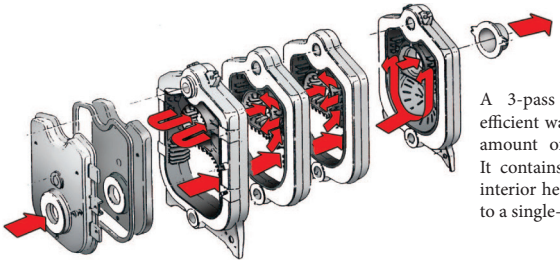
## Technical Advantages

- Reverse Flame Heat Exchanger Reduces Emissions
- Corrosion Resistant GG20 Cast Iron
- ASME Rated to 58 PSI
- Direct Vent Capability (Oil/Gas)
- Limited Lifetime Warranty on Boiler Block



SG Pro Boiler Control Panel

- Hydrostat 3250 Plus Touch Panel Control
- High Limit Boiler Control
- Low Water Cutoff
- Boiler Reset



A 3-pass design is the most efficient way to get the maximum amount of heat from the fuel. It contains three times as much interior heating surface compared to a single-pass boiler.

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# BIASI SG PRO (Touch Panel) Boilers and Burners

## Non-Packaged Boiler and Casing with Hydrolevel 3250 Touch Panel Control Less Burner

| Boiler | AFUE (%) | Heat Capacity (MBH) | Net Output( MBH) | QHT ORDER # | LIST |
|---|---|---|---|---|---|
| | | Oil | Oil | | |
| SG/2 | 86.9 | 79 | 69 | B/SG/2-KD | $CALL |
| SG/3 | 86.9 | 109 | 95 | B/SG/3 -KD | $2,637 |
| SG/4 | 86.9 | 147 | 128 | B/SG/4 -KD | $2,856 |
| SG/5 | 86.8 | 183 | 159 | B/SG/5 -KD | $3,225 |
| SG/6 | 86.8 | 220 | 191 | B/SG/6 -KD | $3,731 |
| SG/7 | 86.8 | 257 | 224 | B/SG/7 -KD | $4,143 |

Each boiler includes: Pre-wired control panel with built in Hydrolevel Touch Screen Panel w/low water cut-off and temperature reset control, immersion well, 30 psi relief valve, 3/4" x 3" nipple, 3/4" 90, 3/4n boiler drain, 2-3/4" plugs, and a cera-fiber pad for the floor of the combustion chamber.

### Assembled Oil Burners

| Oil Burners | Manufacturer | SG Boiler | QHT ORDER # | LIST |
|---|---|---|---|---|
| R40 -F5 | Riello | 3,4,5 | R-C8512483 | $816 |
| R40 -FlO | | 6,7 | R-C8514181 | $1,056 |
| NEC1202 (NX) | Beckett | 3,4 | NEC1202 | $841 |
| EZ -1 HP | Carlin | 3,4,5 | EZ1-97550B | $789 |
| EZ -1 HP W/COVER | | 3,4,5 | EZ1-97550C | $873 |
| EZ -66 | | 6,7 | EZ1-51010A | $858 |
| EZ -66 W/COVER | | 6,7 | EZ1-51010C | $947 |

### Assembled Gas Burners

| Gas Burners** | Manufacturer | SG Boiler | QHT ORDER # | LIST |
|---|---|---|---|---|
| R200 NAT | Riello | 3,4 | R-20081472 | $1,529 |
| R200 Propane | | 3,4 | R-20081470 | $1,529 |
| R400 NAT | | 5,6,7 | R-20081477 | $1,595 |
| R400 Propane | | 5,6,7 | R-20081476 | $1,595 |
| EZ-GAS * | Carlin | 3,4,5 | EZ-98864FRS3 | $1,345 |
| EZ-GAS * | | 6 | EZ-98864FRS6 | $1,345 |
| EZ-GAS * | | 7 | EZ-98864FRS7 | $1,345 |
| EZ-GAS W/COVER * | | 3,4,5 | EZ-98864FRSC3 | $1,601 |
| EZ-GAS W/COVER * | | 6 | EZ-98864FRSC6 | $1,601 |
| EZ-GAS W/COVER * | | 7 | EZ-98864FRSC7 | $1,601 |

* NOTE: Please specify boiler size and fuel type for burner setup.
**All Gas Burners are supplied with a 6" Double Acting Barometric Damper and Spill Switch.

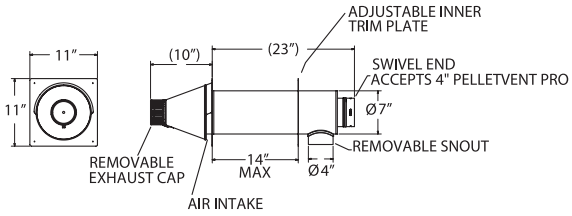
### Item Accessories

| Items | Description | QHT ORDER # | LIST |
|---|---|---|---|
| Beckett Air Boot | BECKETT NX - FRESH AIR ADAPTOR | NEC -NX AIR BOOT | $40 |
| Riello Air Boots | AIR BOOT FOR RIELLO F3/F5 | R-3002761 | $43 |
| | AIR BOOT FOR RIELLO F10/F15/F20 | R-3002762 | $67 |
| Hydrolevel Outdoor Sensor | HYDROLEVEL OUTDOOR SENSOR KIT FOR FUEL SMART HYDROSTATS | C-OS-100 | $50 |
| Carlin Air Boot | AIR BOOT FOR CARLIN EZ1 GAS/OIL BURNERS | EZ1-BOOT | $48 |
| Hydrolevel Control | HYDROSTAT 3250 TOUCH PANEL CONTROL | C-48-3252-02 | $255 |
| Hydrolevel Sensor | HYDROSTAT 10' SENSOR | C-H120 | $73 |
| Hydrolevel Well | HYDROSTAT 3/4" ELECTRO-WELL | C-H205G | $16 |

## Rigid Side Wall Direct Vent Kit (DVF- Oil or Gas)



Dura Vent's Oil Vent Pro is a professionally engineered, easy to install vent system for oil or gas B10 and SG Boilers. It features a smooth interior to reduce whistling and friction loss and utilizes a quick connect / release twist-lock design on the vent pipe that requires no tools. No sealant is needed on the vent pipe joints. Adjustable vent pieces make for an easy installation so that you always get your final lengths without cutting. Concentric termination is designed with a removable end-snout for easy servicing and installation, replaceable if ever damaged. The strong outer wall prevents damage and denting; paintable using high temperature stove paint.




- Stylish clean look
- Removable exhaust cap - easily detachable for cleaning
- Removable air intake snout - for installation ease
- Continuous exhaust pipe - eliminates the chance for cross contamination
- Accommodates wall thicknesses up to 14”
- Concealed air intake - reduces the amount of exhaust recirculation
- Swivel end - adds adjustability
- Attaches directly to Dura Vent's L-Vent pipe
- Lightweight

| Gas / Oil Vent Kit | Boiler | QHT ORDER # | LIST |
|---|---|---|---|
| DVF -4 RIGID | B10 -3,4,5,6 | DVF -4 | $1,264 |

Kit includes: 6” to 4” adapter, 2 4”-elbows, 4” x 36” rigid length, 4” x 24” rigid length, 3” to 16” pipe extension, 4” concentric termination, 4” x 10’ Aluminum intake flex duct, 4” tee, 4” 90, 4” vacuum relief, thermal safety hydronic high limit, tee. This kit provides approximately 10 feet of equivalent length. This kit can be extended to 20 feet of equivalent length.

## Flexible Side Wall Direct Vent Kit (DVH-Oil)



Z-Flex Oil Vent is a professionally engineered, easy to install vent system for oil B10 and SG Boilers. It features a flexible vent piece that makes for an easy installation so that you always get to your final length. The concentric termination is designed with a round diffuser that helps disperse the exhaust gases away from the intake side of the pipe to reduce the risk of any contamination. The strong outer wall prevents damage and denting.

- Stylish clean look
- Removable air intake snout - for installation ease
- Continuous exhaust pipe - eliminates chance for cross contamination
- Lightweight
- Accommodates wall thicknesses up to 11”
- Concealed air intake - reduces the amount of exhaust recirculation

| Oil Only Vent Kit | Boiler | QHT ORDER # | LIST |
|---|---|---|---|
| DVH -5 FLEXIBLE KIT | B10 -3,4,5,6 - SG-3,4 | DVH-5COMBO | $1,137 |

Kit includes: 6” to 5” adapter, 6” elbow, 5” elbow, 5” x 8’ double wall flex pipe, 5” double wall adapter, 5” concentric termination, 5” x 2’ insulation sleeve, 4” x 8’ Aluminum intake flex duct, 4” tee, 4” 90, 4” vacuum relief, thermal hydronic safety high limit, tee.
This kit provides approximately 10 feet of total exhaust length.

THIS KIT CAN ONLY BE USED WITH OIL and CANNOT BE EXTENDED.

## How to order a Direct Vent Boiler:

1. Pick the appropriate boiler based upon the heat requirement.
2. Choose the appropriate burner for the boiler.
3. Choose the appropriate vent kit for your particular installation.

## Burners and Parts for Direct Vent Systems

| B10 DIRECT VENT OIL BURNERS | | | | LIST |
|---|---|---|---|---|
| B1O Oil Burners | Manufacturer | Boiler | QHT ORDER # | |
| R40 -BF -3 | Riello | B10 -3,4 | R-C8511305 | $1,063 |
| R40 -BF -5 | | B10 -5,6 | R-C8512308 | $1,146 |
| NEC1101 (NX) | Beckett | B10 -4,5 | NEC1101 | $841 |
| NEC1102 (NX) | | B10 -3 | NEC1102 | $841 |
| NEC1103 (NX) | | B10 -6 | NEC1103 | $841 |
| NEC Air Boot | | All DV NX Burners | NEC - NX AIR BOOT | $40 |
| EZ -1 HP W/Cover + Boot | Carlin | B10 -3,4,5,6 | EZ1-HP-DV | $961 |

| SG DIRECT VENT OIL BURNERS | | | | LIST |
|---|---|---|---|---|
| SG Oil Burners | Manufacturer | Boiler | QHT ORDER # | |
| R40 -BF -5 | Riello | SG -3,4 | R-C8512381 | $1,146 |
| NEC1202 (NX) | Beckett | SG -3,4 | NEC1202 | $841 |
| NEC Air Boot | | All DV NX Burners | NEC - NX AIR BOOT | $40 |

| B10 DIRECT VENT GAS BURNERS | | | | LIST |
|---|---|---|---|---|
| Gas Burners** | Manufacturer | Boiler | QHT ORDER # | |
| EZ -GAS W/Cover + Boot* | Carlin | B10 -3,4,5,6 | EZ-GAS -DV | $1,698 |

* NOTE: Please specify boiler size and fuel type for burner setup.
**All Gas Burners are supplied with a 8" Double Acting Barometric Damper and Spill Switch.

| DVF -4 EXTENSION PIPE | QHT ORDER # | LIST |
|---|---|---|
| 12" Rigid Direct Vent Pipe Extension | D-4PVP -12 | $41 |
| 24" Rigid Direct Vent Pipe Extension | D-4PVP -24 | $62 |
| 36" Rigid Direct Vent Pipe Extension | D-4PVP -36 | $82 |
| 60" Rigid Direct Vent Pipe Extension | D-4PVP -60 | $111 |
| 12" Pipe Extension Adds (3" - 1O") To Rigid Pipe | D-4PVP -12A | $57 |
| 18" Pipe Extension Adds (3" - 16") To Rigid Pipe | D-4PVP -18A | $87 |
| 48" Pipe Extension Adds (4" - 46") To Rigid Pipe | D-4PVP -48A | $123 |
| 45° Degree Rigid Direct Vent Elbow | D-4PVP -E45 | $76 |
| 90° Degree Rigid Direct Vent Elbow | D-4PVP -E90 | $104 |

Floor Standing Boilers

B40 LINEAR SERIES

The BIASI B40, a triple pass cast iron boiler, is unsurpassed in fuel efficiency, flexibility, and durability. Constructed with GG20 cast iron and ASME rated at 58 psi, B40's thermal efficiency of 87% is amongst the highest for commercial cast iron boilers.

Its triple pass design and lower water content ensure heating demands are quickly met. The B40's unique push nipple design provides equal distribution of return water throughout the boiler's sections thereby maximizing the heat collected and reducing fuel consumption.

The Biasi B40 Boiler control panel is equipped with a pre-wired and tested Hydrolevel "touch screen" controller capable of providing lo-water cutoff, high and low limit with or without outdoor reset.

The B40 Boiler trim kit is supplied with a threaded 2 ½" x 18" supply manifold with (5) ¾" ports to install in back of the boiler. The kit includes a redundant Honeywell L4006E manual high limit aquastat and a manual Hydrolevel 550 LWCO as well as a 30psi PRV, a tridicator and a electronic temperature sensor.

You have easy access to the control panel, burner and boiler combustion chamber and heat exchanger from the front of the boiler.

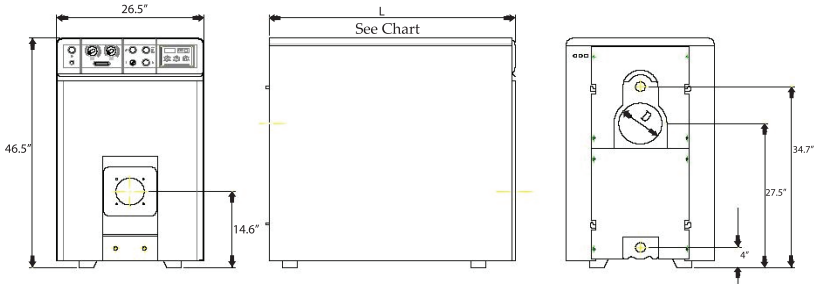
The B40 Boilers, approved for oil, gas, or propane, range from 265 to 783 MBH and are well suited for commercial or multi-unit residential buildings.

The B40 Boiler is supplied with a Limited 20 Year Warranty on Boiler Block.




B40 Series Boiler
Up To 87% Efficiency



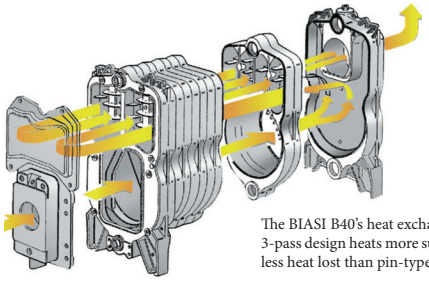




| Boiler Model # | Heating Capacity (MBH) | Gross Input Burner Capacity | | Net Output Oil (MBH) | Efficiency | | Supply, Return Tapping | Water Content (Gal.) | Length (Inches) | Weight (Lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | OIL (GPH) | GAS (MBH) | | OIL (%) | GAS (%) | | | | |
| B40/6 | 265 | 2.2 | 308 | 230 | 86.0 | 84 | 2.5" | 17 | 34.8 | 902 |
| B40/7 | 352 | 2.9 | 406 | 305 | 86.7 | 84 | 2.5" | 20 | 39.5 | 1023 |
| B40/8 | 437 | 3.6 | 504 | 380 | 86.7 | 84 | 2.5" | 23 | 44.4 | 1144 |
| B40/9 | 524 | 4.3 | 602 | 456 | 87.0 | 84 | 2.5" | 26 | 49.2 | 1265 |
| B40/10 | 610 | 5.0 | 700 | 532 | 87.2 | 84 | 2.5" | 28 | 53.9 | 1386 |
| B40/11 | 696 | 5.7 | 798 | 607 | 87.4 | 84 | 2.5" | 31 | 58.8 | 1507 |
| B40/12 | 783 | 6.4 | 896 | 684 | 87.4 | 84 | 2.5" | 34 | 63.8 | 1628 |

(1) The burner input is based on oil with a heat value of 140,000 BTU/Gal. - (2) The net output ratings shown are based on piping and pick-up allowance of 1.15 - (3) The efficiency ratings are based on a combustion condition of 12.5% $C0_2$.

## Technical Advantages

- GG20 Corrosion Resistant Cast Iron
- ASME Listed, Rated to 58 psi
- UL Listed for Oil/Gas
- Efficient Triple Pass Heat Exchanger
- Burner Swing Door
- Heavy Insulation for Low Standby Losses
- Limited 20 Year Warranty on Boiler Block



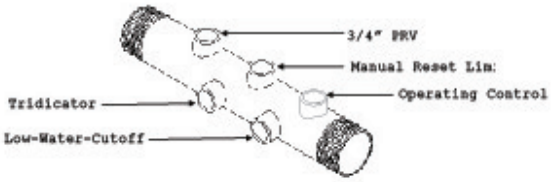
The BIASI B40's heat exchanger path is up to 15 feet long, and the 3-pass design heats more surface area per gallon burned, with 25% less heat lost than pin-type boilers.




## B40 Boiler Control Panel

- Thermal Targeting
- Outdoor Reset Capable
- Cold Start Operation Available
- LED Display
- Low Volt TT Operation
- Circulator- Hold Off (125F)
- Adjustable Differential

## B40 Boiler Supply Header



# BIASI B40 (Oil or Gas Fired) Boilers and Burners

## Non Packaged Boiler, Casing, and Control Panel

| Boiler | Heating Capacity (MBH) (Oil) | Net Output( MBH) (Oil) | QHT ORDER # | LIST |
|---|---|---|---|---|
| B40/6 | 265 | 230 | B40/06+KIT | $6,623 |
| B40/7 | 352 | 305 | B40/07+KIT | $7,288 |
| B40/8 | 437 | 380 | B40/08+KIT | $8,001 |
| B40/9 | 524 | 456 | B40/09+KIT | $8,565 |
| B40/10 | 610 | 532 | B40/10+KIT | $9,783 |
| B40/11 | 696 | 607 | B40/11+KIT | $10,211 |
| B40/12 | 783 | 684 | B40/12+KIT | $11,309 |

Non Packaged Boiler, casing and Control Panel. Kit Includes Manual Reset Hi-limit, Hi/Lo Limit Control LED display and Boiler Trim Components. Threaded supply piping nipple with 3/4" tappings for LWC, pressure relief valve, tridicator, and accessory port.

## Assembled Oil Burners

| Oil Burners | Manufacturer | B-40 Boiler | QHT ORDER # | LIST |
|---|---|---|---|---|
| R40-F10 | Riello | 6,7 | R-20119978 | $1,194 |
| R40-F15 | | 8,9,10 | R-20120177 | $1,631 |
| R40 -F20 | | 11, 12 | R-20120189 | $1,860 |
| NEC501 (CF500) | Beckett | 6,7,8 | NEC501 | $1,170 |
| NEC601 (CF800) | | 9,10 | NEC601 | $1,354 |

## Assembled Gas Burners

| Gas Burners ** | Manufacturer | B-40 Boiler | QHT ORDER # | LIST |
|---|---|---|---|---|
| R400 NAT | Riello | 6 | R-20081477 | $1,595 |
| R400 Propane | | 6 | R-20081476 | $1,595 |
| R750 NAT * | | 7,8,9,10 | R-C8559263 | $3,012 |
| R750 Propane* | | 7,8,9,10 | R-C8559253 | $3,012 |
| R900 NAT * | | 11,12 | R-C8559253 | $5,162 |
| R900 Propane * | | 11,12 | R-C8559117 | $5,162 |
| 201A GAS* | Carlin | 6 | GAS201A | $2,819 |
| 301A GAS* | | 7,8 | GAS301A | $3,789 |
| 301B GAS* | | 9,10,11 | GAS301B | $3,789 |
| 601A GAS* | | 12 | GAS601A | $5,288 |

* NOTE: Please specify boiler size and fuel type for burner setup.
**All Gas Burners are supplied with a 8" Double Acting Barometric Damper and Spill Switch.

## Assembly Tools and Parts:

Boilers that need to be shipped split into two or more sections will be subject to a $100.00 (Net Price) service charge. Assembly tools are available for rental below.

| Part | B-40 Boiler/ Description | QHT ORDER # | LIST |
|---|---|---|---|
| Assembly Tools Rental (credited upon return) | All | B40-Tools | $2885 |
| Short Nipples | 6-12 | B40-59200558 | $24 |
| Long Nipples | 10-12 (last 2 sections) | B40-59200571 | $49 |
| Boiler Sealant | All (1 tube per 2 seals) | B40-60102851 | $60 |
| Hydrolevel Control | HYDROSTAT 3250 TOUCH PANEL CONTROL | C-48-3252-25 | $255 |
| Hydrolevel Sensor | HYDROSTAT 10' SENSOR | C-H120 | $73 |
| Hydrolevel Well | HYDROSTAT 3/4" ELECTRO-WELL | C-H205G | $16 |

Floor Standing Boilers

KAPPA BOILER SYSTEM

The BIASI KAPPA is a wet leg cold-start, atmospheric gas boiler with a unique and high quality, GG20 Cast Iron heat exchanger. The boiler is encased in thick layer of insulation to reduce heat loss, noise and running costs. These features enable Kappa to supply heat quickly to the heating zones and hot water tank resulting in reduced fuel usage. ASME and CSA certified for safety, fuel efficiency and durability.

Utilizing "Lo-NOx" multigas, stainless steel burner with intermittent pilot combined with electronic reset, the KAPPA will reduce your home's fuel bills while lowering emissions of harmful pollutants.

The BIASI KAPPA is easy to install with supply and return fittings on both sides. The front and top casing panels have "push pins" for easy casing removal to expose the burner and control panel. The electrical, safety, and control devices are housed in the control panel.

The BIASI KAPPA boiler has a pre-wired control panel including operating and alert lights.

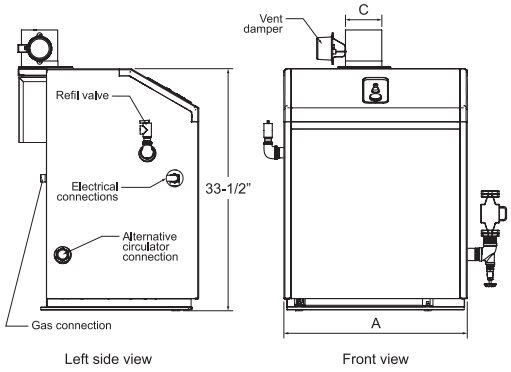
The HW S9361 controller manages all components including the motorized stack damper, BR 8204 valve and regulator, temperature limit, circulator, purging, and reset functions.

You'll enjoy confidence from the KAPPA boilers Limited Lifetime Warranty.




**KAPPA Series Boiler**
85% **AFUE**






Left side view | Front view | Right side view

| Boiler Model # | Supplied With Circulator | # of Sections | Gross Input Burner Capacity GAS (MBH) | Heating Capacity (MBH) | Net Output (MBH) | Net Output (MBH) | Efficiency GAS (%) | Dimensions (inches) | | | Water Content (Gal.) | Weight (Lbs.) | LIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | NATURAL | PROPANE | | A | B | C | | | |
| K-27R | YES | 4 | 101 | 86 | 79 | 70 | 85.0 | 19 3/4 | 25 3/4 | 5" | 3.3 | 249 | $2,471 |
| K-35R | YES | 5 | 130 | 111 | 105 | 94 | 85.0 | 19 3/4 | 25 3/4 | 6" | 4.0 | 308 | $2,768 |
| K-44R | YES | 6 | 164 | 139 | 132 | 117 | 85.0 | 25 3/4 | 25 3/4 | 6" | 4.6 | 367 | $3,002 |
| K-53R | YES | 7 | 198 | 168 | 159 | 141 | 85.1 | 25 3/4 | 25 3/4 | 7" | 5.2 | 427 | $3,242 |
| K-27RLC | NO | 4 | 101 | 86 | 79 | 70 | 85.0 | 19 3/4 | 25 3/4 | 5" | 3.3 | 249 | $2,378 |
| K-35RLC | NO | 5 | 130 | 111 | 105 | 94 | 85.0 | 19 3/4 | 25 3/4 | 6" | 4.0 | 308 | $2,676 |
| K-44RLC | NO | 6 | 164 | 139 | 132 | 117 | 85.0 | 25 3/4 | 25 3/4 | 6" | 4.6 | 367 | $2,909 |
| K-53RLC | NO | 7 | 198 | 168 | 159 | 141 | 85.1 | 25 3/4 | 25 3/4 | 7" | 5.2 | 427 | $3,150 |

## Technical Advantages

- CSA Listed
- Supply and Return Piping From Either Side
- Wet Leg Heat Exchanger Design
- ASME Rated to 58 PSI
- GG20 Cast-Iron Construction
- Limited Lifetime Warranty on Boiler Block
- Industry Standard Components

## Technical Components

- Low-Nox Gas SS Burners
- Intermittant Electronic Pilot Ignition
- Honeywell S9361 Controller
- Honeywell Gas Valve and Regulator
- Motorized Stack Damper
- Low-Water Cutoff Incl
- Standard Boiler Trim
- Industry Standard Components

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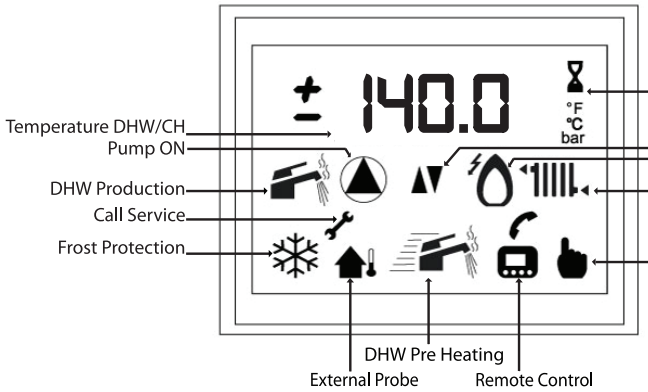
Wall-Mounted Boilers

The BIASI RIVA Advance is a 93% efficient, ASME certified, stainless steel condensing wall-mounted boiler.

By utilizing a pre-mix burner, the Advance CV supplies heat quickly to the heating zones or to an external indirect DHW tank. The Advance CM Combi model also provides heat quickly to heating zones or to the built-in flatplate DHW heat exchanger. Both models are supplied with pre-wired and piped components which are operated by an integrated controller with outdoor reset.



RIVA Advance (M210)






91.5% AFUE

## Technical Advantages

- Stainless Steel ASME certified heat exchanger
- Natural Gas or Propane compatible (comes set for Natural Gas)
- Gas valve and fan modulation - high efficiency throughout firing rate
- Self contained: all parts internalized
- Electronic spark ignition
- Versatile venting options: concentric or separate systems available, certified with Polypropylene or CPVC pipe
- Built-in outdoor reset control
- 3 Way valve for DHW tank operation
- Circulator

## Safety Features

- Frost protection system
- Self diagnostic LCD display control system
- Safety flow switch to prevent thermal shock in the event of low/no water in the heating system
- Internal manual reset high limit control
- Blocked flue pressure switch
- Circulator protection if the boiler is idle for 24 hours
- Condensate trap with safety lock out

## Warranty

- 2 years parts
- 10 years on the primary heat exchanger

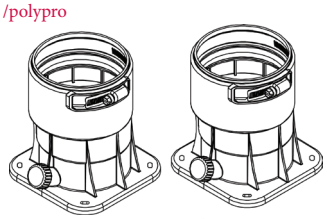
| Boiler Model | Gas Input (BTU/HR) | Min Output (BTU/HR) | Heating Capacity (BTU/HR) | AFUE | DHW Output (gpm) | Width (inches) | Height (inches) | Depth (inches) | Weight (LBS) |
|---|---|---|---|---|---|---|---|---|---|
| RIVA Advance CV | 125,000 | 28,800 | 114,000 | 91.5 | N.A. | 15.7 | 31.6 | 13.8 | 109.5 |
| RIVA Advance Combi | 125,000 | 28,800 | 114,000 | 91.5 | 4.5 @ 45°F rise<br>3.8 @ 54°F rise<br>3.2 @ 63°F rise<br>2.8 @ 72°F rise | 15.7 | 31.6 | 13.8 | 119.5 |

** All boilers shipped natural gas, propane orders will include a field conversion kit.**

| RIVA Advance M210 Premix Condensing Boilers | QHT ORDER # | LIST |
|---|---|---|
| RIVA Advance Heating Only Natural Gas | M210.32CV-N | $3,168 |
| RIVA Advance Combi (DHW) Natural Gas | M210.32CM-N | $3,327 |
| RIVA Advance Heating Only Propane Gas | M210.32CV-P | $3,199 |
| RIVA Advance Combi (DHW) Propane Gas | M210.32CM-P | $3,359 |

## RIVA ADVANCE Polypropylene Venting

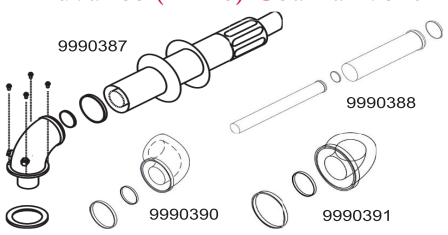
- Max distance is 100' equivalent. This is the total between the intake and exhaust.
  PVC is acceptable for intake pipe.
  NOTE: First 8' of exhaust MUST be CPVC /polypro



When using CPVC/PolyPro venting you must purchase this adapter set.

| PART # | DESCRIPTION | LIST |
|---|---|---|
| 3PPS-60ADP | Boiler Vent Adapter | $79 |

## RIVA Advance (M210) Coaxial Venting




| PART # | DESCRIPTION | LIST |
|---|---|---|
| 9990387 | CONCENTRIC VENT KIT | $119 |
| 9990388 | CONCENTRIC EXT 39" | $94 |
| 9990389 | CONCENTRIC RISER VENT KIT | $258 |
| 9990390 | CONCENTRIC 90° ELBOW | $47 |
| 9990391 | CONCENTRIC 45° ELBOW | $54 |

- 9990387 Concentric Vent Kit comes with 90° elbow and 39" termination.
- 9990389 Concentric Riser Vent Kit comes with 18" riser pipe then 90° elbow and 39" termination.

ENERGY STAR

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| PART # | DESCRIPTION | Boiler Model Numbers | | | | LIST |
|---|---|---|---|---|---|---|
| | | M210 | M135 | M130 | M35 | |
| BI1001 102* | DHW FLAT PLATE | X | X | X | | $155 |
| BI1001 105** | CIRCULATOR GASKET | | | | X | $4 |
| BI1001 106** | FLAT GASKET 1/2" | X | X | X | X | $4 |
| BI1001 108** | FLAT GASKET 3/4" | X | X | X | X | $4 |
| BI1001 117** | TEMPERATURE SENSOR (NTC) | X | X | X | X | $24 |
| BI1011 103* | CENTRAL HEATING FLOW SWITCH MEMBRANE | X | X | X | X | $10 |
| BI1011 502 | MICROSWITCH GUIDE BUSHING | X | X | X | X | $27 |
| BI1011 505** | FLOW SWITCH-MICROSWITCH | X | X | X | X | $16 |
| BI1094 104 | 10 LT (2.64 GAL) DHW FLOW LIMITER | X | X | X | | $20 |
| BI1094 105 | 12 LT (3.17 GAL) DHW FLOW LIMITER | X | X | X | | $20 |
| BI1099909950 | OUTDOOR SENSOR OVERRIDE FOR INDIRECT TANK ON HEAT ONLY | | X | X | | $24 |
| BI1101 101* | 3-WAY DIVERTER VALVE MOTOR CLIP | X | X | X | X | $4 |
| BI1121 106 | 55 LT MAGNESIUM ANODE | | | | X | $78 |
| BI1123 101** | LEFT IGNITION ELECTRODE | | X | X | X | $24 |
| BI1123 102** | DETECTION ELECTRODE (FLAME ROD) | | X | X | X | $24 |
| BI1123 103** | RIGHT IGNITION ELECTRODE | | X | X | X | $24 |
| BI1141 501** | DIVERTER VALVE REBUILD KIT | X | X | | | $96 |
| BI1141 505* | BY-PASS KIT (HEAT ONLY) | X | X | X | | $10 |
| BI1141 509 | FLOW GROUP (HEAT ONLY) | X | | | | $249 |
| BI1171 103 | FLOW GROUP (HEAT ONLY) | | X | X | | $126 |
| BI1171 107 | RETURN GROUP (HEAT ONLY) | X | X | X | | $61 |
| BI1172 105* | OVERHEAT THERMOSTAT | X | | | | $26 |
| BI1172 113 | CIRCULATOR HOUSING GASKET | X | X | X | X | $4 |
| BI1182 105 | 7 LT EXPANSION TANK | | X | X | | $94 |
| BI1191 120 | DHW TEMP/PRESS RELIEF VALVE | | | | X | $76 |
| BI1191 121 | CH PRESS RELIEF VALVE | X | X | X | X | $66 |
| BI1201 100** | 3-WAY DIVERTER MOTOR | X | X | X | X | $76 |
| BI1201 500 | FLOW/RETURN GROUP KIT | | | | X | $249 |
| BI1201 501** | DIVERTER VALVE REPAIR KIT | | | | X | $92 |
| BI1203 103 | BURNER RAIL(14 PORT) | | X | X | X | $135 |
| BI1203 104** | HONEYWELL GAS VALVE | | X | X | X | $266 |
| BI1203 502** | NATURAL GAS CONVERSION KIT | | X | X | X | $41 |
| BI1203 503** | PROPANE GAS CONVERSION KIT | | X | X | X | $41 |
| BI1212 107 | AUTO AIR PURGER FOR CIRCULATOR BODY | X | X | X | X | $35 |
| BI1242 105 | 8 LT EXPANSION TANK | | | | X | $124 |
| BI1242 108 | MAIN HEAT EXCHANGER | | | X | X | $369 |
| BI1242 109** | 110 DEG OVERHEAT MANUAL RESET T-STAT | | X | X | X | $54 |
| BI1251 502 | FLOW GROUP KIT (COMBI) | X | | | | $248 |
| BI1251 503 | FLOW GROUP KIT (COMBI) | | X | X | | $248 |
| BI1253 119 | GAS VALVE | X | | | | $224 |

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RI 13599 0056 | RIVA ADVANCE BOILER REPAIR KIT | $1,566 |
| | ITEMS IN THIS KIT ARE DESIGNATED BY A (*) ABOVE | |

| PART # | DESCRIPTION | Boiler Model Numbers | | | | LIST |
|---|---|---|---|---|---|---|
| | | M210 | M135 | M130 | M35 | |
| BI1253 100* | COMBUSTION CHAMBER GASKET | X | | | | $25 |
| BI1262 100 | 8LT EXPANSION TANK | X | | | | $130 |
| BI1262 104 | OVERHEAT MAUNAL RESET (FLUE T STAT) | | X | | | $135 |
| BI1262 133 | PRESSURE RELIEF VALVE (30PSI) | X | | | | $79 |
| BI1262 135 | MAIN HEAT EXCHANGER | | X | | | $701 |
| BI1262 137** | WILO (OEM CIRCULATOR) | X | X | X | | $312 |
| BI1271 101* | DHW FLOW SWITCH SENSOR | X | X | X | | $42 |
| BI1271 102* | CH FLOW RESTRICTOR | X | X | X | X | $26 |
| BI1271 501* | DHW MAGNECTIC FLOW SWITCH / FILTER KIT | X | X | X | | $83 |
| BI1271 504* | RETURN FLOW GROUP | X | X | X | | $98 |
| BI1293 107* | COMBUSTION CHAMBER FLANGE GASKET | X | | | | $20 |
| BI1295 108* | FUSE 3.15 AMP | X | | | | $4 |
| BI1343 101* | IGNITION ELECTRODE | X | | | | $49 |
| BI1343 103* | DETECTION ELECTRODE | X | | | | $41 |
| BI1363 502* | PROPANE CONVERSION KIT | X | | | | $38 |
| BI1366 107 | AIR PRESSURE SWITCH | | | X | X | $77 |
| BI1386 118 | BOILER FAN | | | X | | $158 |
| BI1406 128 | FAN VENTURI | | X | X | X | $16 |
| BI1442 106* | SPRING MOUNTED NTC TEMP SENSOR | X | | | | $20 |
| BI1475 105 | CONTROL KNOB SHAFT | X | X | X | X | $4 |
| BI1535 101 | CONTROL KNOB | X | X | X | X | $6 |
| BI1536 101* | FLUE OUTLET GASKET | X | X | | | $16 |
| BI1536 104 | FLUE TEMP PROBE | X | | | | $37 |
| BI1536 115** | BOILER FAN | | X | | | $147 |
| BI1545 107** | DHW TEMP SENSOR | | | | X | $44 |
| BI1555 100 | TEMP/PRESS GAUGE | | | | X | $66 |
| BI1555 107** | MAIN CONTROL BOARD (PCB) | | X | X | X | $287 |
| BI1555 108** | FAN AND APS DEVICE CONTROL BOARD | | X | X | X | $73 |
| BI1555 109** | IGNITION CONTROL BOARD (IGNITION CARD) | | X | X | X | $250 |
| BI1555 110 | FUSE 4.0 AMP | | X | X | X | $8 |
| BI1555 111 | TEMP/PRESS GAUGE | | X | X | | $128 |
| BI1665 104* | DELAYED FUSE | X | | | | $4 |
| BI1665 107 | OUTDOOR RESET SENSOR | X | X | X | | $69 |
| BI1665 108 | EXTERNAL TEMP CONTROL BOARD (PCB) | | X | X | | $56 |
| BI1805 102* | SPARK GENERATOR | X | | | | $57 |
| BI1955 116* | IGNITION CONTROL BOARD (PCB) | X | | | | $381 |
| BI1965 119 | TRANSFORMER | X | | | | $84 |
| BI1965 120* | AIR PRESSURE SWITCH | X | | | | $69 |
| BI1985 104 | TANK TEMPERATURE SENSOR | X | | | | $44 |
| KI1051 106 | 2 LT DHW EXPANSION TANK | | | | X | $78 |

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RI 13599 0054 | RIVA AND RIVA PLUS BOILER REPAIR KIT | $1,713 |

ITEMS IN THIS KIT ARE DESIGNATED BY A (**)
ABOVE

## Riva Installation Accessories

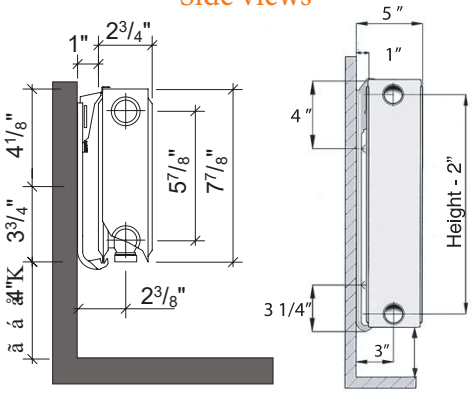
| PART # | DESCRIPTION | LIST |
|---|---|---|
| X400 | X400-SYSTEM RESTORER | $61 |
| X100 | X100-SCALE INHIBITOR | $66 |



# Type 21 Type 22 Type 21 & 22

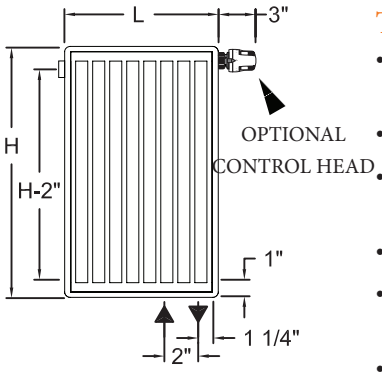


## Side views




4-6" Recommended From Floor

## Front view




## Technical Specifications

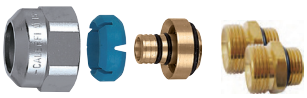
- Material : high quality, low carbon, cold rolled DC01 steel in accordance with PN-EN 10130
- Water channel spacing: 1.3 inches
- Connections: 2 - ½" bottom and 4 – ½" side connections
- Test Pressure: 191 psi
- Color: RAL 9016 white, other colors are available upon special request
- Package of clamp brackets packed in radiator
- Plugs, air vent, and TRV installed on radiator

| CV - STEEL PANEL RADIATORS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Product Code | Height (inch) | Length (inch) | Output (BTU/HR) @ 180°F x 68°F** | Output (BTU/HR) @ 140°F x 68°F** | Weight (lbs) | Water Content (gal) | UPC # | List Price |
| ECS82421CV | 8" | 24" | 1,346 | 781 | 14 | .40 | 6418569225392 | $75 |
| ECS83621CV | | 36" | 2,022 | 1,173 | 22 | .60 | 6418569225422 | $103 |
| ECS84821CV | | 48" | 2,698 | 1,565 | 29 | .80 | 6418569225453 | $131 |
| ECS85621CV | | 56" | 3,147 | 1,825 | 34 | .90 | 6418569225460 | $146 |
| ECS87121CV | | 71" | 4,046 | 2,347 | 43 | 1.2 | 6418569225484 | $183 |
| ECS89221CV | | 92" | 5,172 | 3,000 | 55 | 1.5 | 6418569225507 | $237 |
| ECS812021CV | | 120" | 6,742 | 3,910 | 77 | 2.0 | 6418569225521 | $298 |
| ECS121622CV | 12" | 16" | 1,705 | 1,031 | 15 | .37 | 5907814707499 | $150 |
| ECS122422CV | | 24" | 2,562 | 1,548 | 22 | .53 | 5907814707512 | $177 |
| ECS123222CV | | 32" | 3,414 | 2,064 | 29 | .71 | 5907814707536 | $204 |
| ECS124022CV | | 40" | 4,266 | 2,579 | 37 | .90 | 5907814707550 | $231 |
| ECS124822CV | | 48" | 5,119 | 3,094 | 44 | 1.08 | 5907814707574 | $258 |
| ECS125622CV | | 56" | 5,971 | 3,610 | 51 | 1.27 | 5907814707598 | $285 |
| ECS126422CV | | 64" | 6,828 | 4,128 | 58 | 1.43 | 5907814707604 | $312 |
| ECS161622CV | 16" | 16" | 2,167 | 1,310 | 20 | .48 | 5907814712769 | $171 |
| ECS162422CV | | 24" | 3,254 | 1,967 | 30 | .71 | 5907814712783 | $207 |
| ECS163222CV | | 32" | 4,337 | 2,622 | 40 | .95 | 5907814712806 | $243 |
| ECS164022CV | | 40" | 5,421 | 3,277 | 49 | 1.19 | 5907814712820 | $279 |
| ECS164822CV | | 48" | 6,504 | 3,932 | 59 | 1.43 | 5907814712844 | $316 |
| ECS165622CV | | 56" | 7,587 | 4,586 | 69 | 1.66 | 5907814712868 | $352 |
| ECS166422CV | | 64" | 8,675 | 5,244 | 78 | 1.90 | 5907814712875 | $388 |
| ECS167122CV | | 71" | 9,758 | 5,899 | 88 | 2.11 | 5907814712882 | $424 |
| ECS201622CV | 20" | 16" | 2,610 | 1,578 | 25 | .58 | 5907814714299 | $176 |
| ECS202422CV | | 24" | 3,916 | 2,367 | 37 | .87 | 5907814714312 | $215 |
| ECS203222CV | | 32" | 5,221 | 3,156 | 50 | 1.14 | 5907814714336 | $255 |
| ECS204022CV | | 40" | 6,526 | 3,945 | 62 | 1.43 | 5907814714350 | $294 |
| ECS204822CV | | 48" | 7,831 | 4,734 | 74 | 1.72 | 5907814714374 | $333 |
| ECS205622CV | | 56" | 9,137 | 5,523 | 86 | 2.01 | 5907814714398 | $373 |
| ECS206422CV | | 64" | 10,442 | 6,312 | 98 | 2.30 | 5907814714404 | $412 |
| ECS241622CV | 24" | 16" | 3,037 | 1,836 | 30 | .69 | 5907814707833 | $181 |
| ECS242422CV | | 24" | 4,551 | 2,751 | 45 | 1.06 | 5907814707857 | $225 |
| ECS243222CV | | 32" | 6,069 | 3,669 | 60 | 1.40 | 5907814707871 | $264 |
| ECS244022CV | | 40" | 7,587 | 4,586 | 74 | 1.74 | 5907814707895 | $305 |
| ECS244822CV | | 48" | 9,106 | 5,504 | 89 | 2.09 | 5907814707918 | $347 |
| ECS245622CV | | 56" | 10,624 | 6,422 | 104 | 2.43 | 5907814707932 | $388 |
| ECS246422CV | | 64" | 12,138 | 7,337 | 118 | 2.80 | 5907814707949 | $430 |
| ECS247122CV | | 71" | 13,656 | 8,255 | 133 | 3.14 | 5907814707956 | $471 |
| ECS361622CV | 36" | 16" | 4,240 | 2,563 | 46 | .95 | 5907814708007 | $223 |
| ECS362422CV | | 24" | 6,362 | 3,846 | 68 | 1.43 | 5907814708021 | $284 |
| ECS363222CV | | 32" | 8,480 | 5,126 | 90 | 1.90 | 5907814708045 | $345 |
| ECS364022CV | | 40" | 10,602 | 6,409 | 112 | 2.38 | 5907814708069 | $406 |
| ECS364822CV | | 48" | 12,724 | 7,691 | 135 | 2.85 | 5907814708083 | $467 |

Outputs based on supply temperatures shown, 20° F ΔT and 68° F Room Temperature

## Radiator Fittings

RV-NA10534



Universal PEX Fittings
Compatible with any ASTM F876 single layer PEX.
Max. working pressure: 150 psi.
Working temperature: 41-180°F.
Chrome plated nut.

RV-NA10535



Sweat and Compression fittings fit 1/2" copper.
Max. working pressure: 150 psi.
Working temperature: 41-250°F.
Chrome plated nut.

ALL FITTINGS COME WITH CONICAL RADIATOR ADAPTER

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-NA10536 | 3/8" Nominal PEX | $34/Pair |
| RV-NA10534 | 1/2" Nominal PEX | $34/Pair |
| RV-NA10537 | 5/8" Nominal PEX | $34/Pair |
| RV-NA10535 | 1/2" Copper Sweat | $38/Pair |
| RV-NA10555 | 1/2" Copper Compression | $34/Pair |

## Radiator Valves For Bottom Connections

RV-NA10530




RV-NA10532



RV-NA10531



RV-NA10533



Valves for panel radiators that have built-in thermostatic valve unit. Available in two-pipe straight and angled versions. These Valves fit 1/2" female radiator adapters supplied with fittings. Diverter valves allow a by-pass of 30 to 50%. Factory set for 35%.
Max. working pressure: 150 psi.
Max. working temperature: 212°F.

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-NA10530 | 1/2" Straight Isolation | $35 |
| RV-NA10531 | 1/2" Angled Isolation | $35 |
| RV-NA10532 | 1/2" Straight Diverter | $63 |
| RV-NA10533 | 1/2" Angled Diverter | $63 |

## Radiator Valves For Side Connections

(WORKS WITH ALL RADIATORS)

RV-338452



RV-342452



RV-339452



RV-343452



Angled and Straight radiator valves.
Thermostatic versions allow use of a Non-Electric actuator for room temperature control.
Chrome plated.
Max. working pressure: 150 psi.
Temperature range: 40-212°F.

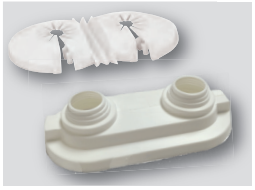
| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-338452 | 1/2" Angled Thermostatic | $59 |
| RV-339452 | 1/2" Straight Termostatic | $59 |
| RV-342452 | 1/2" Angeled Shutoff | $32 |
| RV-343452 | 1/2" Straight Shutoff | $32 |

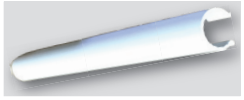
## Radiator Accessories



Thermostatic control head fits radiator valves.
Set point locking mechanism.
Range stop adjustment.
Built-in sensor with liquid-filled element.
Fits valve 220, 221, 338 and 339 series.
Graduated scale from * to 5 corresponding to a temperature scale adjustment range of 45-82°F (7-28°C).

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-200000 | Thermostatic Head | $51 |
| RV-200013 | Thermostatic Head | $127 |





Fits dual panel radiator valves 301 in white ABS.
Outlet center distance: 2" on center.

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-449740 | 2 Pipe Flex Escutcheon | $8 |
| RV-12550 | 2 Pipe Rigid Escutcheon | $9 |
| RV-8W SNAP | 8" Snap On Pipe Cover | $7 |
| RV-39W SNAP | 39" Snap On Pipe Cover | $20 |

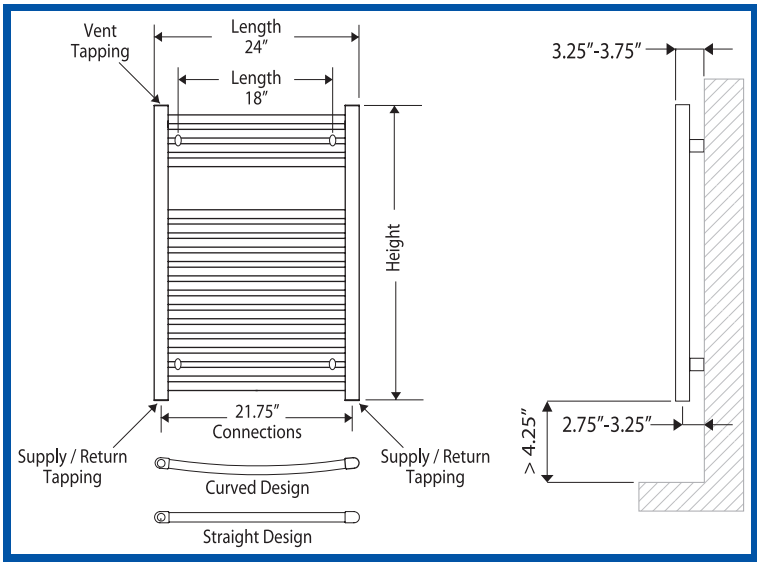
# Ecostyle Towel Bar Radiators

Bringing together premium quality and efficiency with designer looks, the Ecostyle Towel Bars are tubular radiators that have been used in Europe to heat towels as well as whole bathrooms, kitchens, and hallways, without wasting valuable wall space. These towel bars provide comfort and elegance to all types of interiors.
Available in both straight or curved bar design, they can be ordered in white or chrome with outputs ranging from 1,346 BTU/HR to 3,967 BTU/HR. Their compact profile being 24 inches wide and either 33, 48, 59 or 70 inches tall enables them to fit in tight spots
Ecostyle Towel Bars have two ½" bottom connections, a top air vent connection and are available with non-electric thermostatic heads and valve sets.



## Technical Specifications

- Materials: high quality, low carbon, cold rolled DC01 steel in accordance with PN-EN 10130
- Water column spacing: 1 ½" inches
- Connections: 2– ½" bottom connections, 1 - ½" top connection (for air vent)
- Working pressure: 116 psi
- Color: RAL 9016 white, other colors are available upon special request
- Accessories: package of wall brackets, and air vent

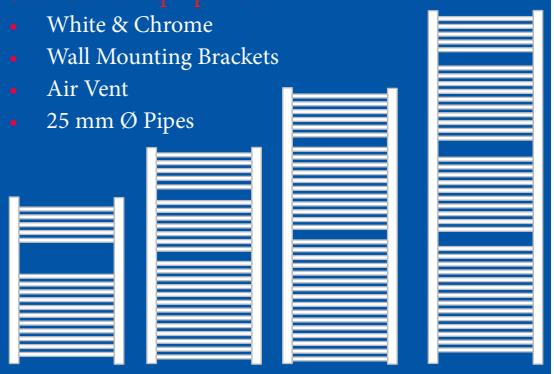



### Optional Equipment

- Valve Kits (White & Chrome)

### Standard Equipment

- White & Chrome
- Wall Mounting Brackets
- Air Vent
- 25 mm Ø Pipes



## Ecostyle Towel Bars
## 3-1/2" Pipe Connection

| WHITE Straight Towel Bar Radiators | | | | LIST |
|---|---|---|---|---|
| Radiator Model | Height (in) | Output (BTU/HR) @ 180°F | Output (BTU/HR) @ 140°F | |
| ECS33.24SW | 33 | 1,972 | 1,056 | $186 |
| ECS48.24SW | 48 | 2,881 | 1,519 | $237 |
| ECS59.24SW | 59 | 3,463 | 1,831 | $255 |
| ECS70.24SW | 70 | 3,967 | 2,103 | $302 |

Note: Outputs based on supply water temperature shown, 20°F ΔT and 68°F Room Temperature.

| CHROME Straight Towel Bar Radiators | | | | LIST |
|---|---|---|---|---|
| Radiator Model | Height (in) | Output (BTU/HR) @ 180°F | Output (BTU/HR) @ 140°F | |
| ECS33.24SC | 33 | 1,346 | 712 | $449 |
| ECS48.24SC | 48 | 1,869 | 975 | $463 |
| ECS59.24SC | 59 | 2,291 | 1,194 | $557 |
| | | | | |

| WHITE Curved Towel Bar Radiators | | | | LIST |
|---|---|---|---|---|
| Radiator Model | Height (in) | Output (BTU/HR) @ 180°F | Output (BTU/HR) @ 140°F | |
| ECS33.24CW | 33 | 1,972 | 1,056 | $257 |
| ECS48.24CW | 48 | 2,881 | 1,519 | $307 |
| ECS59.24CW | 59 | 3,463 | 1,831 | $332 |
| ECS70.24CW | 70 | 3,967 | 2,103 | $379 |

| CHROME Curved Towel Bar Radiators | | | | LIST |
|---|---|---|---|---|
| Radiator Model | Height (in) | Output (BTU/HR) @ 180°F | Output (BTU/HR) @ 140°F | |
| ECS48.24CC | 48 | 1,869 | 975 | $478 |
| ECS59.24CC | 59 | 2,291 | 1,194 | $566 |
| | | | | |
| | | | | |

Note: Outputs based on supply water temperature shown, 20°F ΔT and 68°F Room Temperature.



| TOWEL BAR ROBE HOOKS | | LIST |
|---|---|---|
| Finish | Part Number | |
| WHITE | ECS388132 | $37 |
| CHROME | ECS388133 | $50 |



| AUTOMATIC HYGROSCOPIC AIR VENT | | LIST |
|---|---|---|
| PART # | DESCRIPTION | |
| RV-508041 | 1/2" NPT Male | $23 |
| RV-508100 | Replacement Cartridge | $11 |

## Finished Towel Bar Valves

White Finish



High Chrome Finish



White Finish



High Chrome Finish



PEX Copper



These fittings only work on Finished Valves.

Pair consisting of:
- Double angled convertible radiator valve fitted for thermostatic control head
- Lockshield valve, double angled connections
- Two pipe coverings/wall covering shells and allen key.

Max working pressure: 145 psi.
Temperature Range: 41-212°F.
Choose which side you would like the Valve to be on.

| PART # | DESCRIPTION | COLOR | LIST |
|---|---|---|---|
| RV-400301 | Right side valve | White | $174 |
| RV-400401 | Left side valve | White | $174 |
| RV-400300 | Right side valve | Chrome | $174 |
| RV-400400 | Left side valve | Chrome | $174 |

Thermostatic control head:
- Built-in sensor with liquid filled element
- For finished towel bar valves
- Comes with adapter, and tamper proof cap.

Graduated temperature from: * - 5 = 44 - 82°F.

| PART # | DESCRIPTION | COLOR | LIST |
|---|---|---|---|
| RV-205005 | Thermostatic Head | White | $71 |
| RV-200013 | Thermostatic Head | Chrome | $127 |

Compatible with single and multilayer PEX.
Max. working pressure: 150 psi.
Working temperature: 41-180°F.
Chrome plated nut.

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-681101 | 3/8" Compression PEX | $18/Pair |
| RV-681124 | 1/2" Compression PEX | $18/Pair |
| RV-447014 | 1/2" Compression Copper Working Temperature = -13 - 248°F | $12/Pair |

## Basic Towel Bar Valves

RV-338452



RV-342452



RV-339452



RV-343452



Angled and Straight radiator valves.
Thermostatic versions allow use of a Non-Electric actuator for room temperature control.
Chrome plated.
Max. working pressure: 150 psi.
Temperature range: 40-212°F.

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-338452 | 1/2" Angled Thermostatic | $59 |
| RV-339452 | 1/2" Straight Termostatic | $59 |
| RV-342452 | 1/2" Angeled Shutoff | $32 |
| RV-343452 | 1/2" Straight Shutoff | $32 |



Thermostatic control head fits radiator valves.
Set point locking mechanism.
Range stop adjustment.
Built-in sensor with liquid-filled element.
Fits valve 220, 221, 338 and 339 series.
Graduated scale from * to 5 corresponding to a temperature scale adjustment range of 45-82°F (7-28°C).

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-200000 | Thermostatic Head | $51 |
| RV-200013 | Thermostatic Head | $127 |

## Radiator Fittings

RV-NA10534



Universal PEX Fittings
Compatible with any ASTM F876 single layer PEX.
Max. working pressure: 150 psi.
Working temperature: 41-180°F.
Chrome plated nut.

RV-NA10535

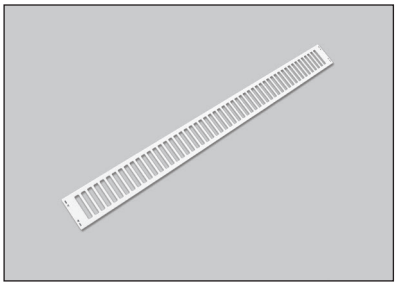


Sweat and Compression connection fitting fits 1/2" copper.
Max. working pressure: 150 psi.
Working temperature: 41-250°F.
Chrome plated nut.

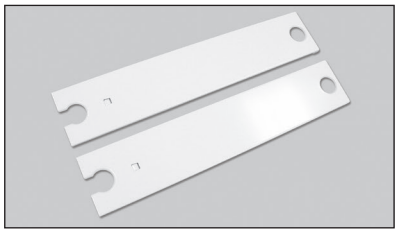
ALL FITTINGS COME WITH CONICAL RADIATOR ADAPTER

| PART # | DESCRIPTION | LIST |
|---|---|---|
| RV-NA10536 | 3/8" Nominal PEX | $34/Pair |
| RV-NA10534 | 1/2" Nominal PEX | $34/Pair |
| RV-NA10537 | 5/8" Nominal PEX | $34/Pair |
| RV-NA10535 | 1/2" Copper Sweat | $38/Pair |
| RV-NA10555 | 1/2" Copper Compression | $34/Pair |

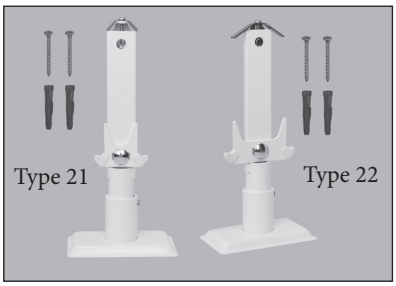
# Ecostyle CV, RCV, PCV Spare Parts

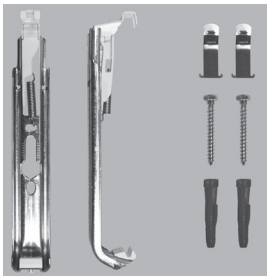


| PART # | DESCRIPTION | LIST |
|---|---|---|
| ECS16 TG | Top Grill For 16” Ecostyle CV, RCV, PCV Type 22 | $8 |
| ECS24 TG | Top Grill For 24” Ecostyle CV, RCV, PCV Type 22 | $10 |
| ECS24 TG8 | Top Grill For 24” Ecostyle CV, RCV, PCV Type 21 | $10 |
| ECS32 TG | Top Grill For 32” Ecostyle CV, RCV, PCV Type 22 | $12 |
| ECS36 TG8 | Top Grill For 36” Ecostyle CV, RCV, PCV Type 21 | $12 |
| ECS40 TG | Top Grill For 40” Ecostyle CV, RCV, PCV Type 22 | $14 |
| ECS48 TG | Top Grill For 48” Ecostyle CV, RCV, PCV Type 22 | $17 |
| ECS48 TG8 | Top Grill For 48” Ecostyle CV, RCV, PCV Type 21 | $17 |
| ECS56 TG | Top Grill For 56” Ecostyle CV, RCV, PCV Type 22 | $22 |
| ECS56 TG8 | Top Grill For 56” Ecostyle CV, RCV, PCV Type 21 | $22 |
| ECS64 TG | Top Grill For 64” Ecostyle CV, RCV, PCV Type 22 | $24 |
| ECS71 TG | Top Grill For 71” Ecostyle CV, RCV, PCV Type 22 | $31 |
| ECS72 TG8 | Top Grill For 72” Ecostyle CV, RCV, PCV Type 21 | $31 |
| ECS92 TG8 | Top Grill For 92” Ecostyle CV, RCV, PCV Type 21 | $35 |
| ECS120TG8 | Top Grill For 120” Ecostyle CV, RCV, PCV Type 21 | $38 |



| PART # | DESCRIPTION | LIST |
|---|---|---|
| ECS8 SP | Side Panel For 8” Ecostyle CV, RCV, PCV Type 21 | $8 |
| ECS12 SP | Side Panel For 12” Ecostyle CV, RCV, PCV Type 22 | $10 |
| ECS16 SP | Side Panel For 16” Ecostyle CV, RCV, PCV Type 22 | $10 |
| ECS20 SP | Side Panel For 20” Ecostyle CV, RCV, PCV Type 22 | $12 |
| ECS24 SP | Side Panel For 24” Ecostyle CV, RCV, PCV Type 22 | $12 |
| ECS36 SP | Side Panel For 36” Ecostyle CV, RCV, PCV Type 22 | $14 |



Works with 8, 12, 16, 20, 24” height radiators. Radiator floor mounting bracket. In white. Bolt down design, with plastic cover to hide plate and screws.

| PART # | DESCRIPTION | LIST |
|---|---|---|
| ECS-FLRBRKT | FLOOR BRACKET FITS TYPE 11,21,22 | $70/Ea |
| ECS8CLAMP | Radiator Wall Bracket Type 21 | $15/Ea |
| ECS12CLAMP | Radiator Wall Bracket Type 22 | $13/Ea |
| ECS16CLAMP | Radiator Wall Bracket Type 22 | $17/Ea |
| ECS20CLAMP | Radiator Wall Bracket Type 22 | $20/Ea |
| ECS24CLAMP | Radiator Wall Bracket Type 22 | $23/Ea |
| ECS36CLAMP | Radiator Wall Bracket Type 22 | $25/Ea |




| PART # | DESCRIPTION | LIST |
|---|---|---|
| X400 | X400-SYSTEM RESTORER | $61 |
| X100 | X100-SCALE INHIBITOR | $66 |

# Radiator Piping Schematic

## DIVERTER VALVES

1 RV-NA10532 STRAIGHT DIVERTING VALVE
RV-NA10533 ANGLED DIVERTING VALVE
NOTE: ADJUSTABLE BY-PASS FROM 30-50%

## ISOLATION VALVES

2 RV-NA10530 STRAIGHT ISOLATING VALVE
RV-NA10531 ANGLED ISOLATING VALVE

## THERMOSTATIC CONTROL

3 RV-200000 THERMOSTATIC CONTROL HEAD

## TOWEL BAR VALVES

4 RV-339452 STRAIGHT THERMOSTATIC VALVE
RV-338452 ANGLED THERMOSTATIC VALVE

5 RV-343452 STRAIGHT SHUT-OFF VALVE
RV-342452 ANGLED SHUT-OFF VALVE

## 6 RADIATOR FITTINGS

(SOLD AS PAIR, CONICAL ADAPTERS ARE INCLUDED)

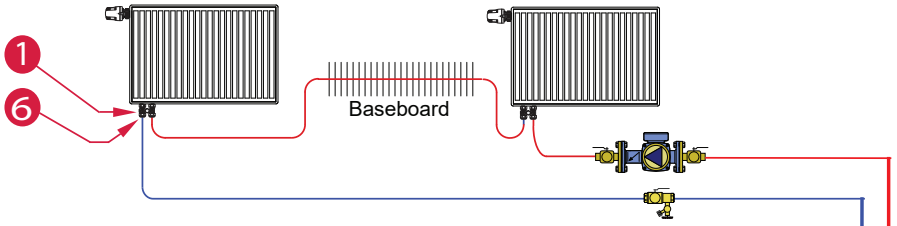
RV-NA10555 1/2" COPPER COMPRESSION FITTING
RV-NA10535 1/2" COPPER SWEAT TAIL FITTING
RV-NA10536 3/8" PEX COMPRESSION FITTING
RV-NA10534 1/2" PEX COMPRESSION FITTING
RV-NA10537 5/8" PEX COMPRESSION FITTING

## ACCESSORIES

RV-8W SNAP 8" WHITE PLASTIC PIPE COVER
RV-39W SNAP 39" WHITE PLASTIC PIPE COVER
RV-12550 TWO PIPE RIGID ESCUTCHEON
RV-449740 TWO PIPE FLEX ESCUTCHEON
RV-200000 NON-ELECTRIC ACTUATOR

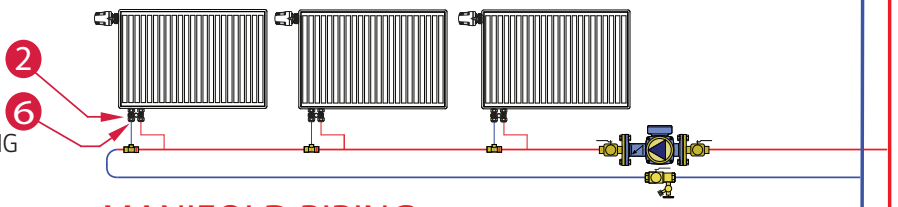
## NOTES: SERIES PIPING

- **RECOMMENDED MAX OF 3 RADIATORS ON ONE LOOP**
- **THERMOSTATIC CONTROL (RV-200000)CAN BE USED FOR INDIVIDUAL RADIATOR ADJUSTMENT**



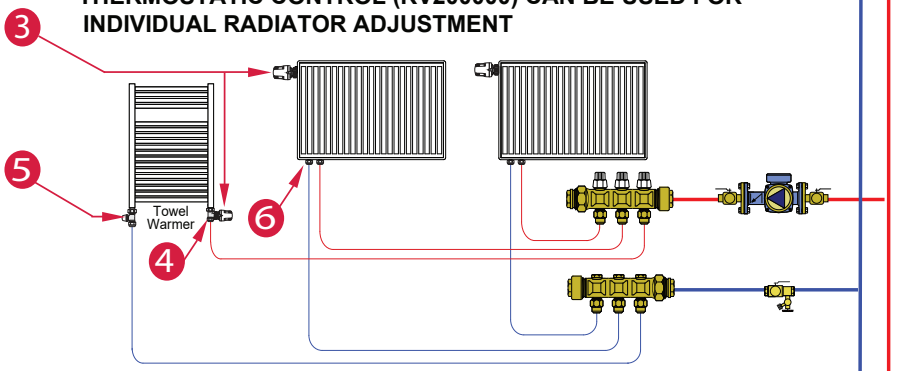

## NOTES: MONOFLOW TEE PIPING

- **MONOFLOW TEES SHOULD BE INSTALLED ON RETURN PIPE FROM RADIATOR**
- **SUPPLY AND RETURN TEES MUST BE AT LEAST 12 INCHES APART**
- **THERMOSTATIC CONTROL (RV200000) CAN BE USED FOR INDIVIDUAL RADIATOR ADJUSTMENT**



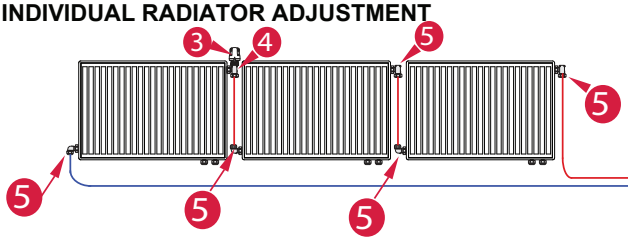

## NOTES: MANIFOLD PIPING

- **ISOLATION VALVES (RV-NA10530,RV-NA10531) ARE NOT REQUIRED, BUT ARE RECOMMENDED**
- **THERMOSTATIC CONTROL (RV200000) CAN BE USED FOR INDIVIDUAL RADIATOR ADJUSTMENT**




## NOTES: FLOW THROUGH PIPING using side tappings

- **ISOLATION OR THERMOSTATIC VALVES (RV-338452, RV-342452, RV-339452, RV-343452)**
- **THERMOSTATIC CONTROL (RV200000) CAN BE USED FOR INDIVIDUAL RADIATOR ADJUSTMENT**



# Radiator Correction Factors

| Water Temperature | | Room Temperature (°F) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Supply (°F) | Return (°F) | 52 | 56 | 60 | 64 | 68 | 72 | 76 |
| 200 | 185 | 1.38 | 1.34 | 1.30 | 1.26 | 1.22 | 1.19 | 1.14 |
| 200 | 180 | 1.35 | 1.32 | 1.28 | 1.23 | 1.20 | 1.16 | 1.12 |
| 200 | 175 | 1.33 | 1.29 | 1.25 | 1.21 | 1.17 | 1.14 | 1.09 |
| 200 | 170 | 1.30 | 1.26 | 1.22 | 1.18 | 1.14 | 1.11 | 1.07 |
| 190 | 175 | 1.28 | 1.24 | 1.20 | 1.16 | 1.12 | 1.09 | 1.05 |
| 190 | 170 | 1.26 | 1.22 | 1.18 | 1.13 | 1.10 | 1.06 | 1.02 |
| 190 | 165 | 1.23 | 1.19 | 1.15 | 1.11 | 1.07 | 1.04 | 0.99 |
| 190 | 160 | 1.20 | 1.16 | 1.12 | 1.08 | 1.05 | 1.01 | 0.97 |
| 180 | 165 | 1.18 | 1.14 | 1.10 | 1.06 | 1.03 | 0.99 | 0.95 |
| 180 | 160 | 1.16 | 1.12 | 1.08 | 1.04 | 1.00 | 0.96 | 0.92 |
| 180 | 155 | 1.13 | 1.09 | 1.05 | 1.01 | 0.97 | 0.94 | 0.89 |
| 180 | 150 | 1.10 | 1.07 | 1.03 | 0.98 | 0.95 | 0.91 | 0.87 |
| 170 | 155 | 1.09 | 1.05 | 1.01 | 0.96 | 0.93 | 0.89 | 0.85 |
| 170 | 150 | 1.06 | 1.02 | 0.98 | 0.94 | 0.90 | 0.87 | 0.82 |
| 170 | 145 | 1.03 | 0.99 | 0.95 | 0.91 | 0.87 | 0.84 | 0.80 |
| 170 | 140 | 1.01 | 0.97 | 0.93 | 0.88 | 0.85 | 0.81 | 0.77 |
| 160 | 145 | 0.99 | 0.95 | 0.91 | 0.86 | 0.83 | 0.79 | 0.75 |
| 160 | 140 | 0.96 | 0.92 | 0.88 | 0.84 | 0.80 | 0.77 | 0.72 |
| 160 | 135 | 0.93 | 0.89 | 0.85 | 0.81 | 0.78 | 0.74 | 0.70 |
| 160 | 130 | 0.91 | 0.87 | 0.83 | 0.78 | 0.75 | 0.71 | 0.67 |
| 150 | 135 | 0.89 | 0.85 | 0.81 | 0.77 | 0.73 | 0.69 | 0.65 |
| 150 | 130 | 0.86 | 0.82 | 0.78 | 0.74 | 0.70 | 0.67 | 0.62 |
| 150 | 125 | 0.83 | 0.80 | 0.76 | 0.71 | 0.68 | 0.64 | 0.60 |
| 150 | 120 | 0.81 | 0.77 | 0.73 | 0.68 | 0.65 | 0.61 | 0.57 |
| 140 | 125 | 0.79 | 0.75 | 0.71 | 0.67 | 0.63 | 0.60 | 0.55 |
| 140 | 120 | 0.76 | 0.72 | 0.68 | 0.64 | 0.60 | 0.57 | 0.53 |
| 140 | 115 | 0.74 | 0.70 | 0.66 | 0.61 | 0.58 | 0.54 | 0.50 |
| 140 | 110 | 0.71 | 0.67 | 0.63 | 0.58 | 0.55 | 0.51 | 0.47 |
| 130 | 115 | 0.69 | 0.65 | 0.61 | 0.57 | 0.53 | 0.50 | 0.45 |
| 130 | 110 | 0.66 | 0.62 | 0.58 | 0.54 | 0.51 | 0.47 | 0.43 |
| 130 | 105 | 0.64 | 0.60 | 0.56 | 0.51 | 0.48 | 0.44 | 0.40 |
| 130 | 100 | 0.61 | 0.57 | 0.53 | 0.48 | 0.45 | 0.41 | 0.36 |
| 120 | 105 | 0.59 | 0.55 | 0.51 | 0.47 | 0.43 | 0.40 | 0.35 |
| 120 | 100 | 0.56 | 0.53 | 0.49 | 0.44 | 0.41 | 0.37 | 0.32 |
| 120 | 95 | 0.54 | 0.50 | 0.46 | 0.41 | 0.38 | 0.34 | 0.29 |
| 120 | 90 | 0.51 | 0.47 | 0.43 | 0.38 | 0.34 | 0.31 | 0.26 |

To use conversion table:

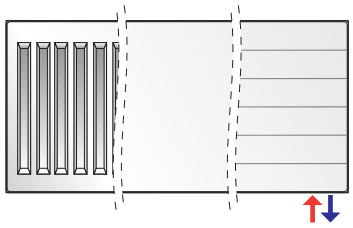
1. Find output at standard conditions listed.
2. Find conversion factor at desired supply, return and room temperatures.
3. New output equals output at standard conditions multiplied by conversion factor.

Example:

Radiator B-48.24SW has an output of 2,881 BTU at standard conditions (180°F Supply temp & 68°F Room temp).
The output at a supply temp of 160°F, a return temp of 145°F and a room temp or 72°F would be 2881 BTU x 0.79 = 2276 BTU.

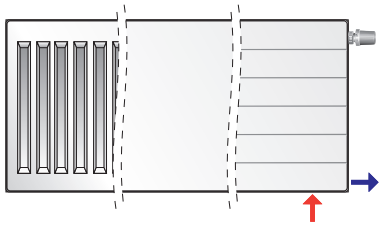
## Bottom Connection

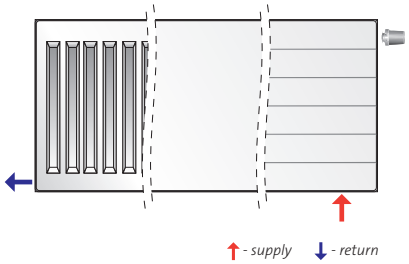
This connection method is used with the bottom-supplied radiators. The supply and return line axes are always located, respectively, 3" and 1" from the side edge of the radiator. Reversed connection will cause a drop in the heat output of over 30%.



## Intermediate Connection

The bottom-supplied radiators can be connected in parallel with the side and bottom connections. Possible are intermediate solutions presented at the drawings: side and flow-through connections.

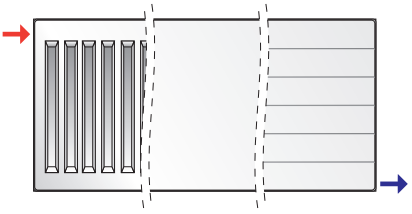





## Flow-Through Connection

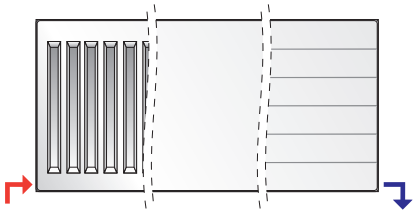
Recommended for the radiators of length exceeding 80" and also for the radiators of length exceeding four times their height.
These connections provide even distribution of temperature over the entire length of the radiator. The supply line should be connected to the left or right connector pipe and the return line should be connected to the opposite, bottom connections.

Reversed connection will cause a drop in the heat output of over 30%.
This flow-through connection method can be used in the side-supplied radiators as well as in the bottom-supplied radiators after the removal of a thermostatic valve insert.



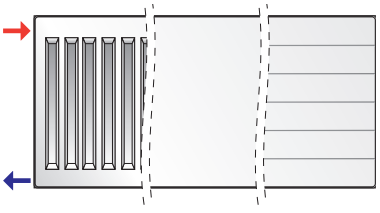
## Opposite Ends Connection

With this connection method, the heat output of the radiators will be approximately 10% lower than the rated heat output. This type of connection method is most commonly used with the side-supplied radiators when the heating system piping is distributed in skirting boards above the floor. It can also be used with the bottom-supplied radiators after the removal of a thermostatic valve insert.



## Side Connection

The most popular solution is connecting radiators on either the right or the left side. The supply line should be connected to the top and the return line to the bottom connector pipe of the radiator. Reversed connection will cause a drop in the heat output of over 30%. This side connection method can be used in the side-supplied radiators as well as in the bottom-supplied radiators after the removal of a thermostatic valve insert.



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