Installation Instructions
for use by Viessmann representatives

for Vitodens 200-W, WB2B 60/80/105 Series Boilers

Multiple Boiler Low-Loss Distribution Manifold

IMPORTANT
Read and save these instructions for future reference.
Safety and Installation Requirements

Please ensure that these instructions are read and understood before installation. Failure to comply with the instructions listed below can cause product/property damage, severe personal injury, and/or loss of life.

Working on the equipment
The installation, adjustment, service and maintenance of this product must be done by a licensed professional heating contractor who is qualified and experienced in the installation, service, and maintenance of hot water boilers. There are no user serviceable parts on the boiler, burner or control.

Ensure main power supply to equipment, the heating system, and all external controls has been deactivated. Close main gas supply valve. Take precautions in both instances to avoid accidental activation of power during service work.

It is not permissible to perform service work on any component part ensuring safe operation of the heating system. When replacing parts, use original Viessmann or Viessmann approved replacement parts.

Ensure that the installation literature of other Vitodens 200-W components is referenced.

Product Information

The Multi-Boiler Low-Loss Distribution Manifold is a prefabricated distribution and low-loss header system that allows from two to eight Vitodens 200-W boilers to be fully assembled, wired and piped prior to the installation. The manifold makes for fast and easy installation of a multiple Vitodens 200-W system and decouples high flow rate systems from the boiler loop.

Model 200/120 can accommodate two Vitodens 200-W boilers, model 300/200 up to four Vitodens 200-W boilers and model 400/200 up to eight boilers. Manifolds can be assembled with a Low-Loss Header on the left or right side.

The distribution manifolds are hydrostatically tested to 100 psig as well as checked for proper alignment.

The distribution manifold up to four boilers must be fastened to a wall and floor capable of handling the weight of the boilers.

The distribution manifolds for installing five to eight boilers are self supporting and shall be mounted to the floor capable of handling the weight of the assembled unit.

IMPORTANT

DO NOT weld in the field.

Legend

1 Low-loss header
2 Vitodens 200-W boiler
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Installation Examples 2, 3 and 4 Boilers

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3-boiler manifold and low-loss header model 250/150 with 4” ANSI flange connection on system side.

4-boiler manifold and low-loss header model 300/200 with 5” ANSI flange connection on system side.

4-boiler manifold and low-loss header* model 300/200 with 5” ANSI flange connection on system side.

For corner installations, please order ANSI flange set with welded 3” NPT coupling. See Viessmann Price List for order information.

*Elbows and pipes are field supplied.
Multiple Boiler Low-Loss Distribution Manifold Installation

**Installation Examples 2, 3 and 4 Boilers (continued)**

All manifold flanges are 3” ANSI, allowing the low-loss headers to be assembled on the left or right side.

<table>
<thead>
<tr>
<th>System Component</th>
<th>Water Volume Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-boiler manifold</td>
<td>3.9 USG (15.0 L)</td>
</tr>
<tr>
<td>3-boiler manifold</td>
<td>7.1 USG (27.0 L)</td>
</tr>
<tr>
<td>4-boiler manifold</td>
<td>7.6 USG (30.0 L)</td>
</tr>
<tr>
<td>200/120 Low Loss Header (typical 2-boiler use)</td>
<td>7.3 USG (27.6 L)</td>
</tr>
<tr>
<td>250/150 Low Loss Header (typical 3-boiler use)</td>
<td>12.0 USG (45.0 L)</td>
</tr>
<tr>
<td>300/200 Low Loss Header (typical 4-boiler use)</td>
<td>20.0 USG (75.0 L)</td>
</tr>
<tr>
<td>2-boiler manifold and 200/120 Low Loss Header</td>
<td>11.2 USG (42.6 L)</td>
</tr>
<tr>
<td>3-boiler manifold and 250/150 Low Loss Header</td>
<td>19.1 USG (72.0 L)</td>
</tr>
<tr>
<td>4-boiler manifold and 300/200 Low Loss Header</td>
<td>27.6 USG (105.0 L)</td>
</tr>
</tbody>
</table>
Installation

Multiple Boiler Low-Loss Distribution Manifold Installation

Single Rack Wall Mounted
1. Attach distribution manifold ① to manifold supporting feet ②, and secure with M10 bolts ⑩.

2. Attach manifold supporting feet ② to adjustable legs ⑥ using supplied M12 bolts ③, washers ④, and M12 nuts ⑤. Secure with locking bolts ⑩. Anchor to concrete floor using supplied floor anchors (not shown).

3. Install the two supplied wall attachment brackets ⑦ to boiler mounting beam ⑧, using supplied M10 bolts ③, washers ④, and M10 nuts ⑩. Anchor the wall attachment brackets ⑩ to the wall.

IMPORTANT

The distribution manifold must be horizontally level and vertically plum.

IMPORTANT

Please provide the distribution manifold serial number ⑨ when reporting any service related issues. If the distribution manifold is installed with insulation (strongly recommended), please ensure that the distribution manifold serial number is documented separately.

   **Note:** Attach the low-loss header supporting foot ③ before attaching the header to the distribution manifold ① using supplied M12 bolts ⑩, washers ④ and M12 nuts ⑩.

5. Anchor low-loss header supporting foot ③ to floor, using supplied concrete floor anchors (not shown).


7. Attach cascade control mounting bracket ⑨ to the low-loss header ② using supplied M10 nuts ⑨.

---

### Legend

1. Distribution manifold (without low-loss header)
2. Low-Loss header
3. Low-Loss header supporting foot, c/w concrete floor anchors (not shown)
4. Washer
5. M16 nut (130 lb. ft / 176 Nm)
6. M16 bolt (130 lb. ft / 176 Nm)
7. Gasket
8. Blind flange
9. M10 nut (6.5 lb. ft / 8.8 Nm)
10. Cascade control mounting bracket
11. M12 bolts (35 lb.ft / 47.5 Nm)
12. M12 nut (35 lb.ft / 47.5 Nm)

---

**IMPORTANT**

All manifold flanges are 3” ANSI standard.
Low-loss header flanges on system sides are ANSI standard.

<table>
<thead>
<tr>
<th>Low-loss header</th>
<th>System flange size</th>
</tr>
</thead>
<tbody>
<tr>
<td>200/120</td>
<td>3”</td>
</tr>
<tr>
<td>250/150</td>
<td>4”</td>
</tr>
<tr>
<td>300/200</td>
<td>5”</td>
</tr>
</tbody>
</table>

**IMPORTANT**

The distribution manifolds and low-loss header must be horizontally level and vertically plumb.

**IMPORTANT**

Install rack insulation prior to mounting boilers.
8. Mount the Vitodens 200-W boilers to the distribution manifold using the wall mounting brackets supplied with the boilers. Attach and tighten each wall mounting bracket using supplied M10 bolts, washers and M10 nuts.

**IMPORTANT**
The boiler mounting bracket must be level. This is essential to allow for proper boiler connection alignment.

9. Attach and tighten each clamping bracket to the distribution manifold using supplied M8 bolts, washers and M8 nuts. The Vitodens 200-W boilers should be firmly secured to the distribution manifold.

10. After the boilers are mounted, install the Power Pump Module supporting beam (to the manifold supporting feet) using the supplied M8 bolts, washers and M8 nuts.

Legend
- 1 Distribution manifold
- 2 Vitodens 200-W boiler
- 3 Clamping bracket
- 4 Wall mounting bracket (supplied with boiler)
- 5 M8 bolt (10 lb. ft / 13.6 Nm)
- 6 Washer
- 7 M10 bolt (20 lb. ft / 27 Nm)
- 8 M10 nut (20 lb. ft / 27 Nm)
- 9 M8 nut (10 lb. ft / 13.6 Nm)
- 10 Power/Pump Module supporting beam
- 11 M8 bolt (10 lb. ft / 13.6 Nm)
- 12 Washer
- 13 M8 nut (10 lb. ft / 13.6 Nm)
11. Ball valves ⑤ come pre-installed to the distribution manifold supply ③ and to the distribution manifold return ④.

12. Attach boiler pump ⑬ to ball valve on return side, using the supplied pump flange ⑦, pump gasket ⑨, bolts ⑪ and nuts ⑫.

**Note:** Prior to installing the boiler pump, remove flow-check valve from the pump.

13. Attach adjustable transition connector with integrated flow-check valve ⑰ and ⑱ to the boiler pump ⑬ using the supplied pump gasket ⑨, pump flange ⑦, bolts ⑪ and nuts ⑫.

**Note:** See following page for adjustable transition connector details.

14. Attach adjustable transition connector ⑰ and ⑱ (with integrated flow-check valve) to boiler return ② using supplied gasket ⑭.

15. Attach connecting nipple with G thread ⑯ to ball valve ⑤ on supply side using supplied gasket ⑧ and the 2” G (straight) nut ⑥.

16. Attach adjustable transition connector ⑰ and ⑱ to connecting nipple with G thread ⑯ using gasket ⑧ and the 2” G (straight) nut ⑥.

17. Connect boiler supply ① and boiler return ② to transition connectors in each case using gasket ⑭.

18. Tighten all connectors. Tighten compression nut on adjustable transition connectors, ⑯ with ⑰ or ⑱.

19. Attach ¾” street elbow ⑰ and pressure relief valve ⑱ to connecting nipple with G thread ⑯.

**Note:** Parts ⑰ or ⑱ are combined with part ⑯ to create an adjustable transition connector (see following page). Do not disconnect prior to installation.

---

**Legend**

① Boiler supply  
② Boiler return  
③ Distribution manifold supply  
④ Distribution manifold return  
⑤ Ball valve  
⑥ 2” G (straight) nut  
⑦ Pump flange  
⑧ Gasket, G2”  
⑨ Pump gasket  
⑩ Connecting nipple, G thread (with PRV connection - NPT)  
⑪ Bolt  
⑫ Nut  
⑬ Boiler pump  
⑭ Flange sleeve with integrated flow-check valve (return side)  
⑮ Flange sleeve (supply side)  
⑯ Transition connector, G1½” to G2”  
⑰ Gasket, G1½”  
⑱ Pressure relief valve  
⑲ ¾” street elbow
Multiple Boiler Low-Loss Distribution Manifold Installation

Adjustable Transition Connector

IMPORTANT

See left for proper assembly of adjustable transition connector; avoid disassembly; if disassembled, reassemble carefully following the steps below and avoid damage to EPDM gasket.

Note: If servicing, please replace entire assembly.

1. Remove compression nut 5.

2. Install steel ring 4, flat washer 3 and EPDM profile gasket 2 onto the flange sleeve 6.

3. Connect the flange sleeve to the adjustable transition connector 1 and tighten compression nut 5.

IMPORTANT

Install adjustable transition connector with integrated flow-check valve on boiler return only.

Legend
1 Adjustable transition connector
2 EPDM profile gasket
3 Flat washer
4 Steel ring
5 Compression nut
6 Flange sleeve
Due to the unique design of the distribution manifold, the left and right boiler side clearances mentioned in the Vitodens 200-W manuals may be disregarded in this application. The left and right side boiler clearances are those values arising from mounting the boilers on the distribution manifold.

In sidewall and vertical venting applications in Canada, the sidewall termination distances between two adjacent boilers may be reduced from 3 ft. (900 mm) to 1.7 ft. (500 mm).

Note: Dimensions are shown in inches and millimeters [in brackets].
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Note: Dimensions are shown in inches and millimeters [in brackets].
Multiple Boiler Low-Loss Distribution Manifold Installation

Installation

Dimensions, 4-Boiler Manifold with Low-Loss Header, Model 300/200 (continued)

Note: Dimensions are shown in inches and millimeters [in brackets].
Installation Examples 5, 6, 7 and 8 Boilers

5-boiler manifold and low-loss header model 400/200 with 6” ANSI flange connection on system side.

6-boiler manifold and low-loss header model 400/200 with 6” ANSI flange connection on system side.

7-boiler manifold and low-loss header model 400/200 with 6” ANSI flange connection on system side.

8-boiler manifold and low-loss header model 400/200 with 6” ANSI flange connection on system side.
Installation Examples 5, 6, 7 and 8 Boilers (continued)

All low-loss header flanges are 6” ANSI, allowing the low-loss headers to be assembled on the left or right side.

<table>
<thead>
<tr>
<th>System Component</th>
<th>Water Volume Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>400/200 Low-Loss Header (typical from 5 to 8 boilers)</td>
<td>32.2 USG (122 L)</td>
</tr>
<tr>
<td>5 boiler + Y connector + LLH</td>
<td>67.8 USG (256.6 L)</td>
</tr>
<tr>
<td>6 boiler + Y connector + LLH</td>
<td>75.6 USG (286.0 L)</td>
</tr>
<tr>
<td>7 boiler + Y connector + LLH</td>
<td>93 USG (352.0 L)</td>
</tr>
<tr>
<td>8 boiler + Y connector + LLH</td>
<td>93 USG (352.0 L)</td>
</tr>
</tbody>
</table>
1. Attach distribution manifolds ① to manifold supporting feet ②, and secure with M12 bolts ③.

2. Attach manifold supporting feet ② to adjustable legs ④ using supplied M12 bolts ⑤, washers ⑥ and M12 nuts ⑦. Anchor to concrete floor using supplied anchors (not shown).

**IMPORTANT**

The distribution manifolds must be horizontally level and vertically plumb.

**IMPORTANT**

Please provide the distribution manifold serial number ⑧ when reporting any service related issues. If the distribution manifold is installed with insulation (strongly recommended), please ensure that the distribution manifold serial number is documented separately.

**Legend**

① Distribution manifold (without low-loss header)
② Manifold supporting feet
③ M10 bolt (20 lb. ft / 27 Nm)
④ Adjustable foot, c/w anchors (not shown)
⑤ M12 bolt (35 lb. ft / 47.5 Nm)
⑥ Washer
⑦ M12 nut (35 lb. ft / 47.5 Nm)
⑧ Serial number
3. Attach low-loss header back to back bracket 1 to distribution manifolds 2 on both ends, using supplied M12 bolts 3, washers 4 and M12 nuts 5.

4. Attach the Y connectors 6 to the distribution manifolds 2 (top and bottom) with gasket 7 using supplied M16 bolts 8, washers 9 and M16 nuts 10. See page 33 for ‘Flange Tightening Procedure’.


Note: Attach the low-loss header supporting foot 16 before attaching the header 7 to the distribution manifold 2 using supplied M12 bolts 8, washers 9 and M12 nuts 10.


7. Anchor low-loss header supporting foot 16 to floor, using supplied floor anchors (not shown).

Legend
1 Low-loss header bracket (set of 2)
2 Distribution manifold
3 M12 bolt (35 lb. ft / 47.5 Nm)
4 Washer
5 M12 nut (35 lb. ft / 47.5 Nm)
6 Y adaptor
7 Gasket
8 M16 bolt (130 lb. ft / 176 Nm)
9 Washer
10 M16 nut (130 lb. ft / 176 Nm)
11 Blind flange
12 Gasket
13 M16 bolt (130 lb. ft / 176 Nm)
14 Washer
15 M16 nut (130 lb. ft / 176 Nm)
16 Low-Loss header supporting foot, c/w concrete floor anchors (not shown)
17 Low-Loss header
18 M12 bolt (35 lb. ft / 47.5 Nm)
19 Washer
20 M12 nut (35 lb. ft / 47.5 Nm)
21 Gasket
22 M20 bolt (202 lb. ft / 273 Nm)
23 Washer
24 M20 nut (202 lb. ft / 273 Nm)
25 M10 bolts (20 lb. ft / 27 Nm)

All manifold flanges are 3” ANSI standard.
Low-loss header flanges on system sides are ANSI standard.

**IMPORTANT**
The distribution manifolds and low-loss header must be horizontally level and vertically plumb.

Install rack insulation prior to mounting boilers.
8. Mount the Vitodens 200-W boilers ② to the distribution manifold ① using the wall mounting brackets ③ supplied with the boilers. Attach and tighten each wall mounting bracket ③ using supplied M10 bolts ④, washers ⑤ and M10 nuts ⑥.

**IMPORTANT**

The boiler mounting bracket must be level. This is essential to allow for proper boiler connection alignment.

9. Attach and tighten each clamping bracket ⑦ to the distribution manifold ① using supplied M8 bolts ⑧, washers ⑨ and M8 nuts ⑩. The Vitodens 200-W boilers ② should be firmly secured to the distribution manifold.

10. After the boilers are mounted, install the Power/Pump Module supporting beam ⑪ (to the manifold supporting feet) using the supplied M8 bolts ⑫, washers ⑬ and M8 nuts ⑭.

Legend

① Distribution manifold
② Vitodens 200-W boiler
③ Wall mounting bracket (supplied with boiler)
④ M10 bolt (20 lb. ft / 27 Nm)
⑤ Washer
⑥ M10 nut (20 lb. ft / 27 Nm)
⑦ Clamping bracket
⑧ M8 bolt (10 lb. ft / 13.6 Nm)
⑨ Washer
⑩ M8 nut (10 lb. ft / 13.6 Nm)
⑪ Power/Pump Module supporting beam
⑫ M8 bolt (10 lb. ft / 13.6 Nm)
⑬ Washer
⑭ M8 nut (10 lb. ft / 13.6 Nm)
11. Ball valves come pre-installed to the distribution manifold supply and to the distribution manifold return.

12. Attach boiler pump to ball valve on return side, using the supplied pump flange, pump gasket, bolts and nuts.

Note: Prior to installing the boiler pump, remove flow-check valve from the pump.

13. Attach adjustable transition connector with integrated flow-check valve to the boiler pump using the supplied pump gasket, pump flange, bolts and nuts.

Note: See following page for adjustable transition connector details.

14. Attach adjustable transition connector (with integrated flow-check valve) to boiler return using supplied gasket.

15. Attach connecting nipple with G thread to ball valve on supply side using supplied gasket and the 2”G (straight) nut.

16. Attach adjustable transition connector to connecting nipple with G thread using gasket and the 2” G (straight) nut.

17. Connect boiler supply and boiler return to transition connectors in each case using gasket.

18. Tighten all connectors. Tighten compression nut on adjustable transition connectors, with or.

19. Attach ¾” street elbow and pressure relief valve to connecting nipple with G thread.

Note: Parts or are combined with part to create an adjustable transition connector (see following page). Do not disconnect prior to installation.
IMPORTANT
See left for proper assembly of adjustable transition connector; avoid disassembly; if disassembled, reassemble carefully following the steps below and avoid damage to EPDM gasket.

If servicing, please replace entire assembly.

1. Remove compression nut 5.

2. Install steel ring 4, flat washer 3 and EPDM profile gasket 2 onto the flange sleeve 6.

3. Connect the flange sleeve to the adjustable transition connector 1 and tighten compression nut 5.

IMPORTANT
Install adjustable transition connector with integrated flow-check valve on boiler return only.

Legend
1 Adjustable transition connector
2 EPDM profile gasket
3 Flat washer
4 Steel ring
5 Compression nut
6 Flange sleeve

Adjustable transition connector for boiler supply connection

Adjustable transition connector for boiler return connection
Due to the unique design of the distribution manifold, the left and right boiler side clearances mentioned in the Vitodens 200-W manuals may be disregarded in this application. The left and right side boiler clearances are those values arising from mounting the boilers on the distribution manifold.

In sidewall and vertical venting applications in Canada, the sidewall termination distances between two adjacent boilers may be reduced from 3 ft. (900 mm) to 1.7 ft. (500 mm).

Note: Dimensions are shown in inches and millimeters [in brackets].
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Due to the unique design of the distribution manifold, the left and right boiler side clearances mentioned in the Vitodens 200-W manuals may be disregarded in this application. The left and right side boiler clearances are those values arising from mounting the boilers on the distribution manifold.

In sidewall and vertical venting applications in Canada, the sidewall termination distances between two adjacent boilers may be reduced from 3 ft. (900 mm) to 1.7 ft. (500 mm).
Viessmann offers two Grundfos boiler pumps only which meet typical Vitodens system installation requirements on the manifold. See tables below for recommended pumps.

**IMPORTANT**

Pump selection must be based on accurate system flow and pressure drop calculations (incl. DHW sizing).

The following pumps have been selected based on boiler heat exchanger head loss and boiler piping to a low-loss header.

<table>
<thead>
<tr>
<th>Model</th>
<th>WB2B 80</th>
<th>Flow rate</th>
<th>Boiler pressure drop (ft.)</th>
<th>Recommended pump Grundfos</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>18 °F Δt</td>
<td>28.3</td>
<td>UPS 26-150F, 115V, Speed 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22 °F Δt</td>
<td>23.3</td>
<td>UPS 26-99FC, 115V, Speed 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 °F Δt</td>
<td>17.3</td>
<td>UPS 26-99FC, 115V, Speed 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35 °F Δt</td>
<td>14.9</td>
<td>UPS 26-99FC, 115V, Speed 1</td>
</tr>
<tr>
<td></td>
<td>Flow limitation L/h / GPM</td>
<td></td>
<td>8000 / 35.2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>WB2B 105</th>
<th>Flow rate</th>
<th>Boiler pressure drop (ft.)</th>
<th>Recommended pump Grundfos</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>25 °F Δt</td>
<td>28.3</td>
<td>UPS 26-150F, 115V, Speed 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 °F Δt</td>
<td>23.3</td>
<td>UPS 26-99FC, 115V, Speed 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40 °F Δt</td>
<td>17.3</td>
<td>UPS 26-99FC, 115V, Speed 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47 °F Δt</td>
<td>14.3</td>
<td>UPS 26-99FC, 115V, Speed 1</td>
</tr>
<tr>
<td></td>
<td>Flow limitation L/h / GPM</td>
<td></td>
<td>8000 / 35.2</td>
<td></td>
</tr>
</tbody>
</table>
Y Adaptor

Note: Dimensions are shown in inches and millimeters [in brackets].
Flange Tightening Procedure

The following procedures will assist you in tightening 4-bolt and 8-bolt flanges with gaskets. See pages 8-9 and 22-23.

<table>
<thead>
<tr>
<th>Flange Size</th>
<th>Final Torque</th>
<th>Torque Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>M16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Lubricate, hand tighten, then snug up bolts.

2. Tighten to 25% of final torque.

3. Tighten to 50% of final torque.

4. Tighten to 100% of final torque.
   Check gap around the circumference between each of these rounds, measured at every other bolt. If the gap is not reasonably uniform around the circumference, make the appropriate adjustments by selective bolt tightening before proceeding.

5. Rotational round - 100% of final torque.
   Use rotational, clockwise tightening sequence, starting with bolt no. 1, for one complete round and continue until no further nut rotation occurs at 100% of the final torque value for any nut.

6. Final round - re torque. After 24 hours check gap around the circumference between each of these rounds, measured at every other bolt. If the gap is not reasonably uniform around the circumference, make the appropriate adjustments by selective bolt tightening before proceeding. Use rotational, clockwise tightening sequence, starting with bolt no. 1, for one complete round and continue until no further nut rotation occurs at 100% of the final torque value for any nut.

**Note:** Tests show that a large percentage of the short-term bolt preload loss occurs within 24 hours after initial tightening. This round recovers this loss. This is especially important for PTFE gaskets.

**Tightening methods**
- Hand wrench
- Manual torque wrench
- Hydraulic torque wrench
- Impact wrench
**Multiple Boiler Low-Loss Distribution Manifold**

For VITODENS 200-W WB2B Series

<table>
<thead>
<tr>
<th>Manifold Type</th>
<th>Part Number</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Boiler LLH Distribution Manifold</td>
<td>Z008 013</td>
<td>1</td>
<td>1 x 7424 325</td>
</tr>
<tr>
<td>3-Boiler LLH Distribution Manifold</td>
<td>Z008 014</td>
<td>1</td>
<td>1 x 7424 326</td>
</tr>
<tr>
<td>4-Boiler LLH Distribution Manifold</td>
<td>Z008 015</td>
<td>1</td>
<td>1 x 7424 331</td>
</tr>
</tbody>
</table>

**Shipping Overview**

5-Boiler Low-Loss Distribution Manifold consisting of:

- 100 2-Boiler Manifold: 1 x 7424 325
- 100 3-Boiler Manifold: 1 x 7424 326
- 200 400/200 Low-loss header: 1 x 7455 784
- 300 Fittings (boiler fittings): 5 x 7424 331
- 400 Fittings (rack fittings): 2 x 7438 492
- 500 Fittings (adjustable legs): 2 x 7438 494
- 600 Fittings (low-loss header fittings): 1 x 7498 684
- 700 Y connector (set of 2): 1 x 7439 029

6-Boiler Low-Loss Distribution Manifold consisting of:

- 100 3-Boiler Manifold: 2 x 7424 326
- 200 400/200 Low-loss header: 1 x 7455 784
- 300 Fittings (boiler fittings): 6 x 7424 331
- 400 Fittings (rack fittings): 2 x 7438 492
- 500 Fittings (adjustable legs): 2 x 7438 494
- 600 Fittings (low-loss header fittings): 1 x 7498 684
- 700 Y connector (set of 2): 1 x 7439 029

7-Boiler Low-Loss Distribution Manifold consisting of:

- 100 2-Boiler Manifold: 2 x 7424 325
- 200 300/200 Low-loss Header: 1 x 7424 330
- 300 Fittings (boiler fittings): 4 x 7424 331
- 400 Fittings (rack fittings): 2 x 7438 492
- 500 Fittings (adjustable legs): 2 x 7438 494
- 600 Fittings (low-loss header fittings): 1 x 7498 684
- 700 Y connector (set of 2): 1 x 7439 029

8-Boiler Low-Loss Distribution Manifold consisting of:

- 100 2-Boiler Manifold: 4 x 7424 325
- 200 400/200 Low-loss header: 1 x 7455 784
- 300 Fittings (boiler fittings): 8 x 7424 331
- 400 Fittings (rack fittings): 4 x 7438 492
- 500 Fittings (adjustable legs): 4 x 7438 494
- 600 Fittings (low-loss header fittings): 1 x 7498 684
- 700 Y connector (set of 2): 1 x 7439 029

**IMPORTANT**

- Do not drop boiler manifold or low-loss header. Boiler and system connections will be completely out-of-alignment when a unit has been dropped during shipping or installation. Welding repairs render warranty null and void.
- Do not install boiler manifold free-standing; manifold shall be affixed to a wall capable of handling the weight of the boilers.

**Parts List**

**IMPORTANT**

- Manifold insulation (optional) must be installed prior to mounting boilers.
Parts

see page 36

Serial No. Location

*1 Blind flanges with gaskets shipped mounted to boiler manifold
## Parts List

### Parts

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Gasket, 3” ANSI</td>
</tr>
<tr>
<td>102</td>
<td>Ball valve, 1 ¼” Ø *2</td>
</tr>
<tr>
<td>103</td>
<td>Gasket 6” ANSI</td>
</tr>
<tr>
<td>201</td>
<td>Air bleed cap, ½”</td>
</tr>
<tr>
<td>301</td>
<td>Accessory pack, boiler connection fittings (for one boiler) including fasteners for boiler (not illustrated)</td>
</tr>
<tr>
<td>302</td>
<td>Adjustable transition connector, 1 ¼” Ø for return with integrated flow-check valve</td>
</tr>
<tr>
<td>303</td>
<td>Adjustable transition connector, 1 ¼” Ø for supply</td>
</tr>
<tr>
<td>304</td>
<td>Connection nipple, 1 ¼” Ø</td>
</tr>
<tr>
<td>601</td>
<td>Accessory pack gaskets and fasteners for LLH connection</td>
</tr>
<tr>
<td>700</td>
<td>Y connector (set of 2)</td>
</tr>
</tbody>
</table>

### Not Illustrated

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>Installation Instructions</td>
</tr>
<tr>
<td>203</td>
<td>Parts List</td>
</tr>
<tr>
<td>401</td>
<td>Accessory pack anchors for adjustable legs (set of 24)</td>
</tr>
<tr>
<td>402</td>
<td>Accessory pack M10 fasteners for wall brackets M12 fasteners for adjustable legs</td>
</tr>
<tr>
<td>800</td>
<td>Insulation for boiler manifold (optional)</td>
</tr>
<tr>
<td>801</td>
<td>Insulation for low-loss header (optional)</td>
</tr>
<tr>
<td>900</td>
<td>Flange set (optional) to install 90° elbow set (elbow set field supplied)</td>
</tr>
</tbody>
</table>

**BS** Boiler supply  
**BR** Boiler return  
**MS** Manifold supply  
**MR** Manifold return

- See separate Parts List for Vitodens boiler
- See separate Parts List for Vitodens installation fittings

*2 Ball valves shipped mounted to boiler manifold

*3 Select circulation pump based upon system pressure drop and flow rate requirement  
  - see Vitodens Technical Data Manual

*4 Included with Vitodens installation fittings