

# Installation Instructions

## Multiple Boiler Low-Loss

## Distribution Manifold, Part No. Z008013, Z008014, Z008015

for use with Vitodens 200-W, WB2B 45, 60, 80 and 105 boilers

Please file in Service Binder

### 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 four 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, and model 300/200 up to four Vitodens 200-W boilers (see next page). Both models 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 must be fastened to a wall and floor capable of handling the weight of the boilers.

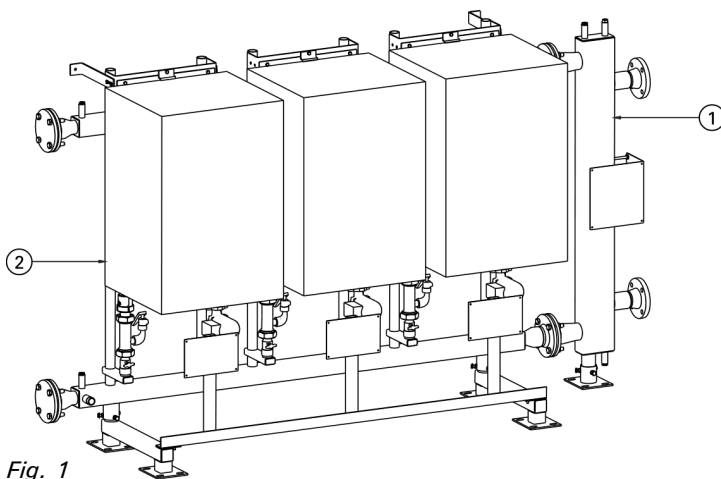


Fig. 1  
Front view with Low-Loss  
Header on right side

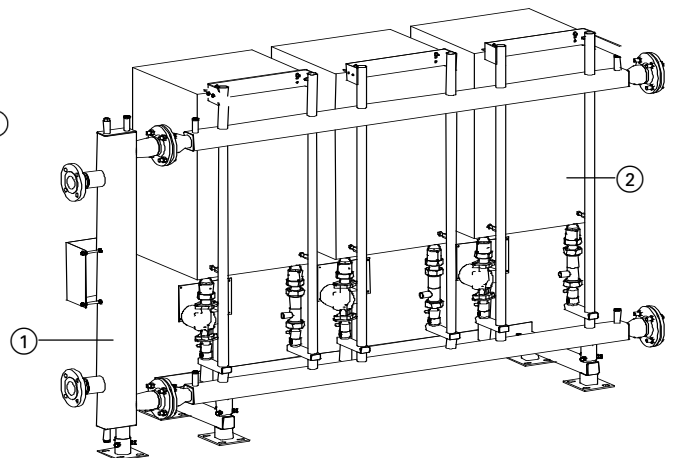


Fig. 2  
Rear view

#### Legend

- ① Low-loss header
- ② Vitodens 200-W boiler

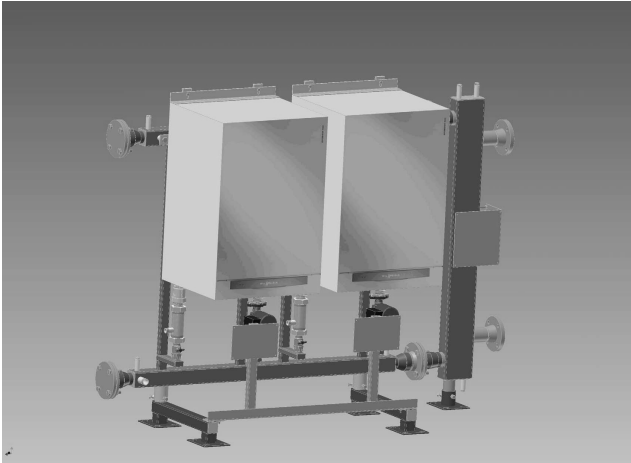
**IMPORTANT**

**DO NOT reweld in the field.**

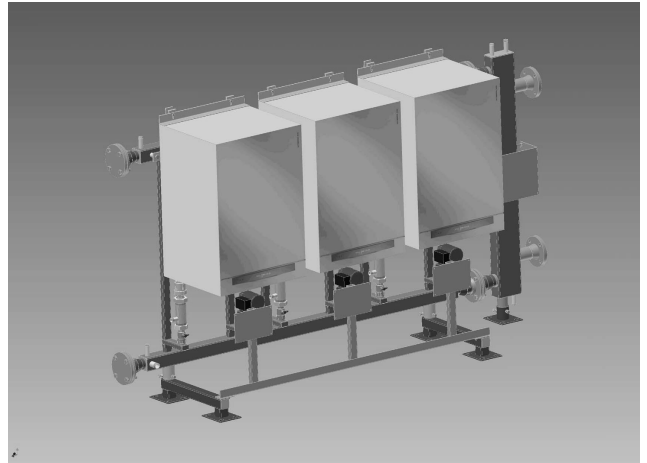
**IMPORTANT**

**DO NOT install free standing.**

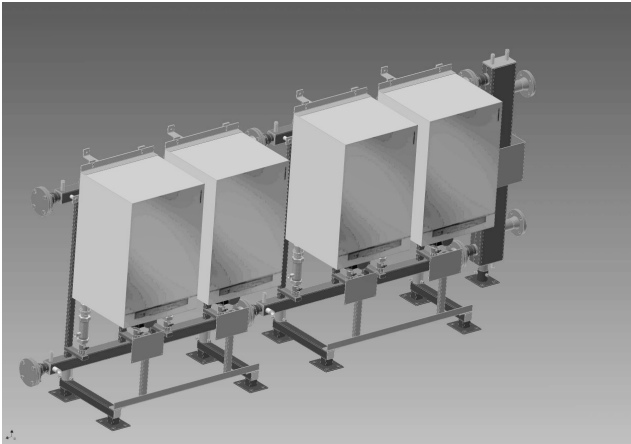
## Installation Examples



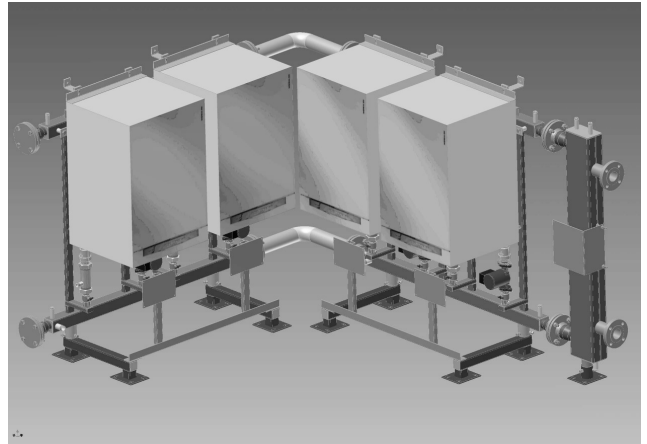
*Fig. 3*  
2-boiler manifold and low-loss header model  
200/120 with 3" ANSI flange connection on system  
side.



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



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



*Fig. 6*  
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.*

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

# Installation

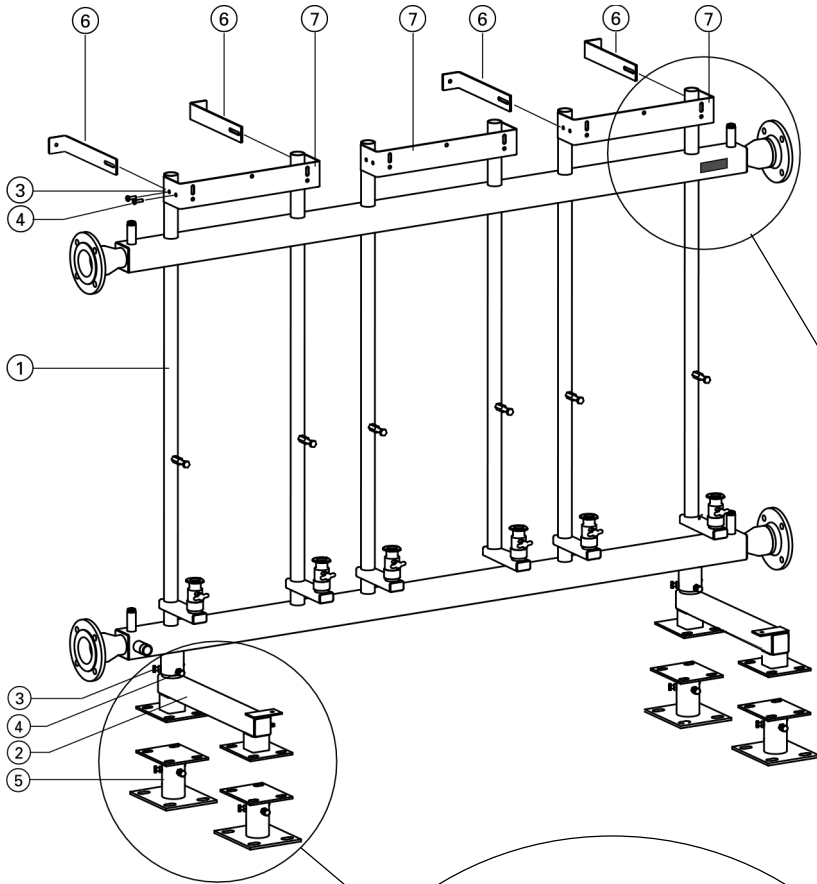


Fig. 7  
Distribution manifold assembly

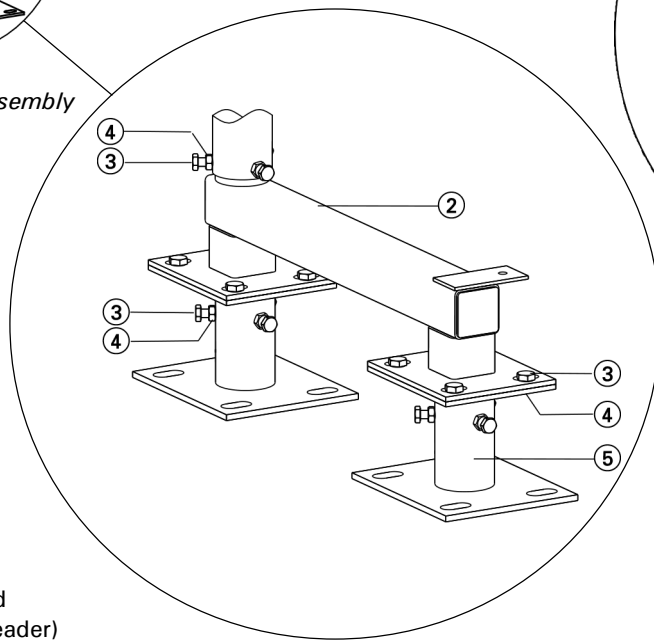


Fig. 8  
Manifold adjustable legs

1. Attach distribution manifold (1) to manifold supporting feet (2), using supplied M10 bolts (3) and M10 nuts (4).
2. Attach manifold supporting feet to adjustable legs (5) using supplied M10 bolts (3) and M10 nuts (4). Anchor to concrete floor using supplied concrete anchors (not shown) (see Fig. 8).
3. Install the four supplied wall attachment brackets (6) to boiler mounting beam (7), using supplied M10 bolts (3) and M10 nuts (4).

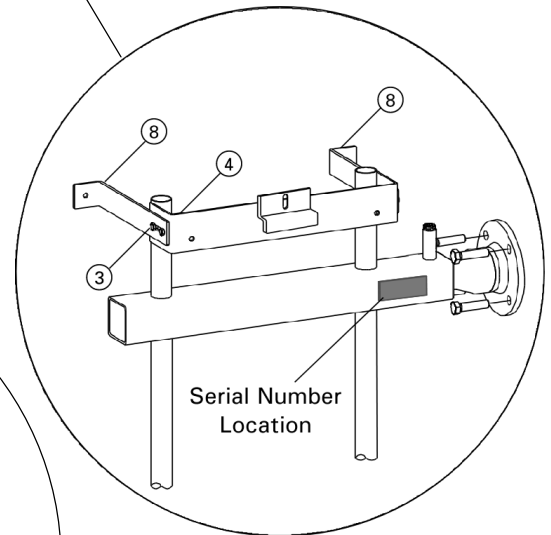


Fig. 9  
Serial Number location

## Legend

- ① Distribution manifold (without low-loss header)
- ② Manifold supporting feet
- ③ M10 bolt (6.5 lb. ft / 8.8 Nm)
- ④ M10 nut (6.5 lb. ft / 8.8 Nm)
- ⑤ Adjustable leg, c/w concrete anchors (not shown)
- ⑥ Wall attachment bracket (seismic bracket) (set of 4)
- ⑦ Boiler mounting beam

## IMPORTANT

Please provide the distribution manifold serial number 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.

*Continued on the following page.*

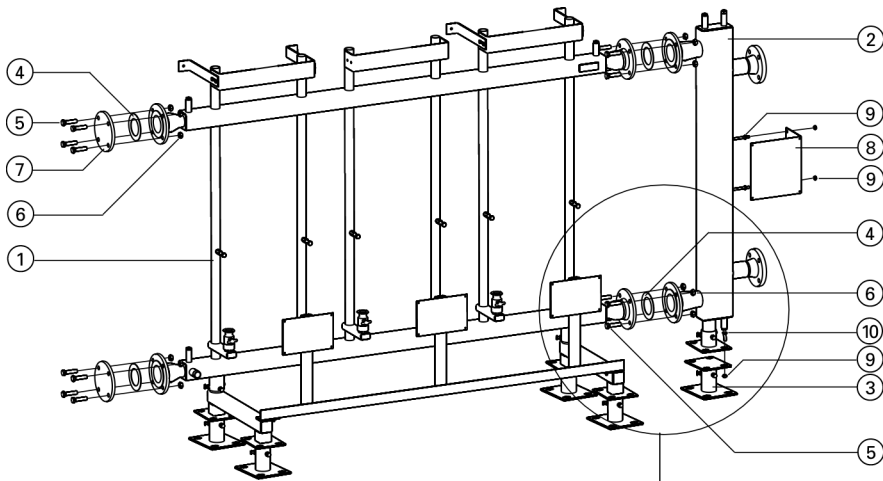


Fig. 9  
Low-loss header installation (right side)

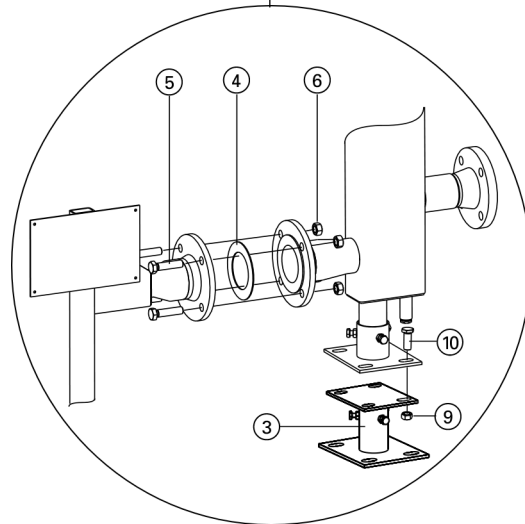


Fig. 10  
Low-loss header connection

### 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 Gasket
- ⑤ M16 bolt (6.5 lb. ft / 8.8 Nm)
- ⑥ M16 nut (6.5 lb. ft / 8.8 Nm)
- ⑦ Blind flange
- ⑧ Cascade control mounting bracket
- ⑨ M10 nut (6.5 lb. ft / 8.8 Nm)
- ⑩ M10 bolt (6.5 lb. ft / 8.8 Nm)

4. Attach low-loss header ② to distribution manifold ① on the desired side, using supplied M16 bolts ⑤ and M16 nuts ⑥. Insert gaskets ④ between flanges.

### Note:

Attach the low-loss header supporting foot ③ before attaching the header to the distribution manifold.

5. Anchor low-loss header supporting foot ③ to floor using supplied concrete floor anchors (not shown).
6. Install blind flanges ⑦ on opposite side of distribution manifold using supplied M16 bolts ⑤ and M16 nuts ⑥. Insert gaskets ④ between flanges.

All manifold flanges are 3" ANSI standard.

Low-loss header flanges on system sides are ANSI standard.

Low-loss header	Flange size
200/120	3"
250/150	4"
300/200	5"

7. Attach cascade control mounting bracket ⑧ to low-loss header using supplied M10 nuts ⑨.

*Continued on the following page.*

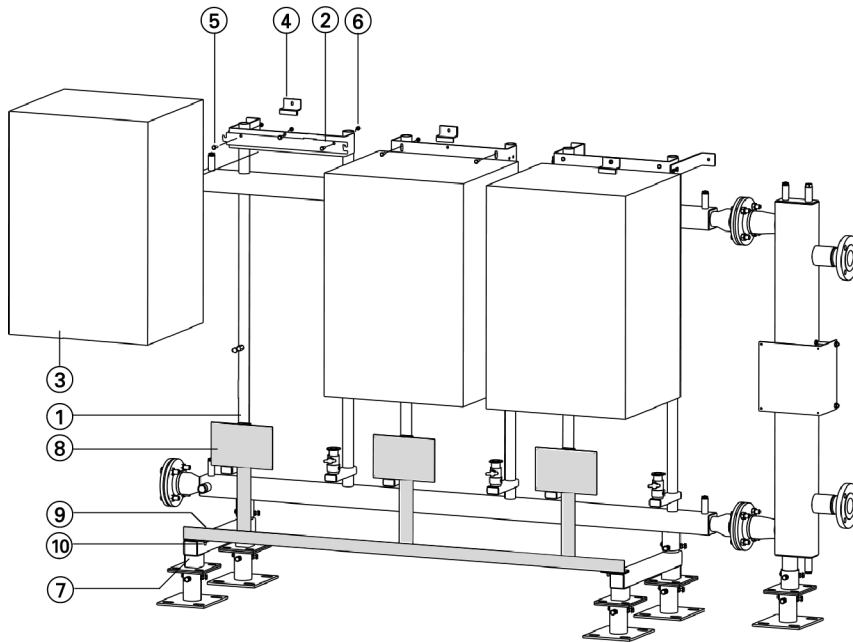


Fig. 11  
Installing boilers on manifold

### Legend

- ① Distribution manifold
- ② Wall mounting brackets (c/w boiler)
- ③ Vitodens 200-W boiler
- ④ Clamping bracket
- ⑤ M10 bolt (6.5 lb. ft / 8.8 Nm)
- ⑥ M10 nut (6.5 lb. ft / 8.8 Nm)
- ⑦ Manifold supporting feet
- ⑧ Power/Pump Module supporting beam
- ⑨ M8 bolt (6.5 lb. ft / 8.8 Nm)
- ⑩ M8 nut (6.5 lb. ft / 8.8 Nm)

8. Mount the Vitodens 200-W boilers ③ to the distribution manifold ① using the wall mounting brackets ② supplied with the boilers.
9. Attach and tighten clamping brackets ④ to distribution manifold ① using supplied M10 bolts ⑤ and M10 nuts ⑥ so that the Vitodens 200-W boilers ③ are firmly secured to the distribution manifold.
10. After the boilers are mounted, install the Power Pump Module supporting beam ⑧ to the manifold supporting feet, using the supplied M8 bolts ⑨ and M8 nuts ⑩.

*Continued on the following page.*

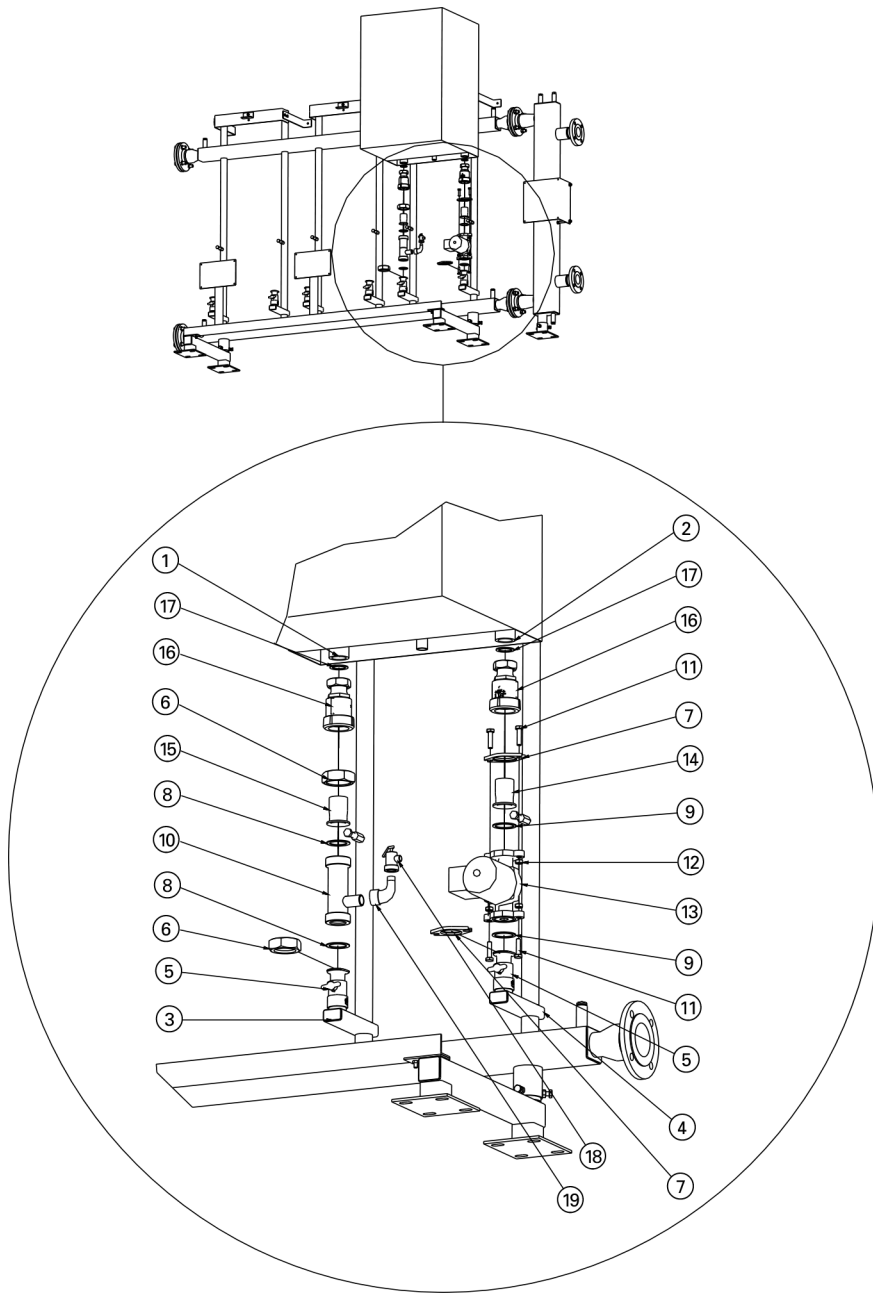


Fig. 12  
Connecting boilers to distribution manifold

**Legend**

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

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 ⑭ and ⑯ 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 ⑯ and ⑭ (with integrated flow-check valve) to boiler return ② using supplied gasket ⑭.

15. Attach connecting nipple with G thread ⑩ to ball valve ⑤ on supply side using supplied gasket ⑧ and the 2" G (straight) nut ⑥.

16. Attach adjustable transition connector ⑮ and ⑯ to connecting nipple with G thread ⑩ 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 ⑭ or ⑮.

19. Attach ¾" street elbow ⑰ and pressure relief valve ⑱ to connecting nipple with G thread ⑩.

Parts ⑭ or ⑮ are combined with part ⑯ to create an adjustable transition connector (see following page). Do not disconnect prior to 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.

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

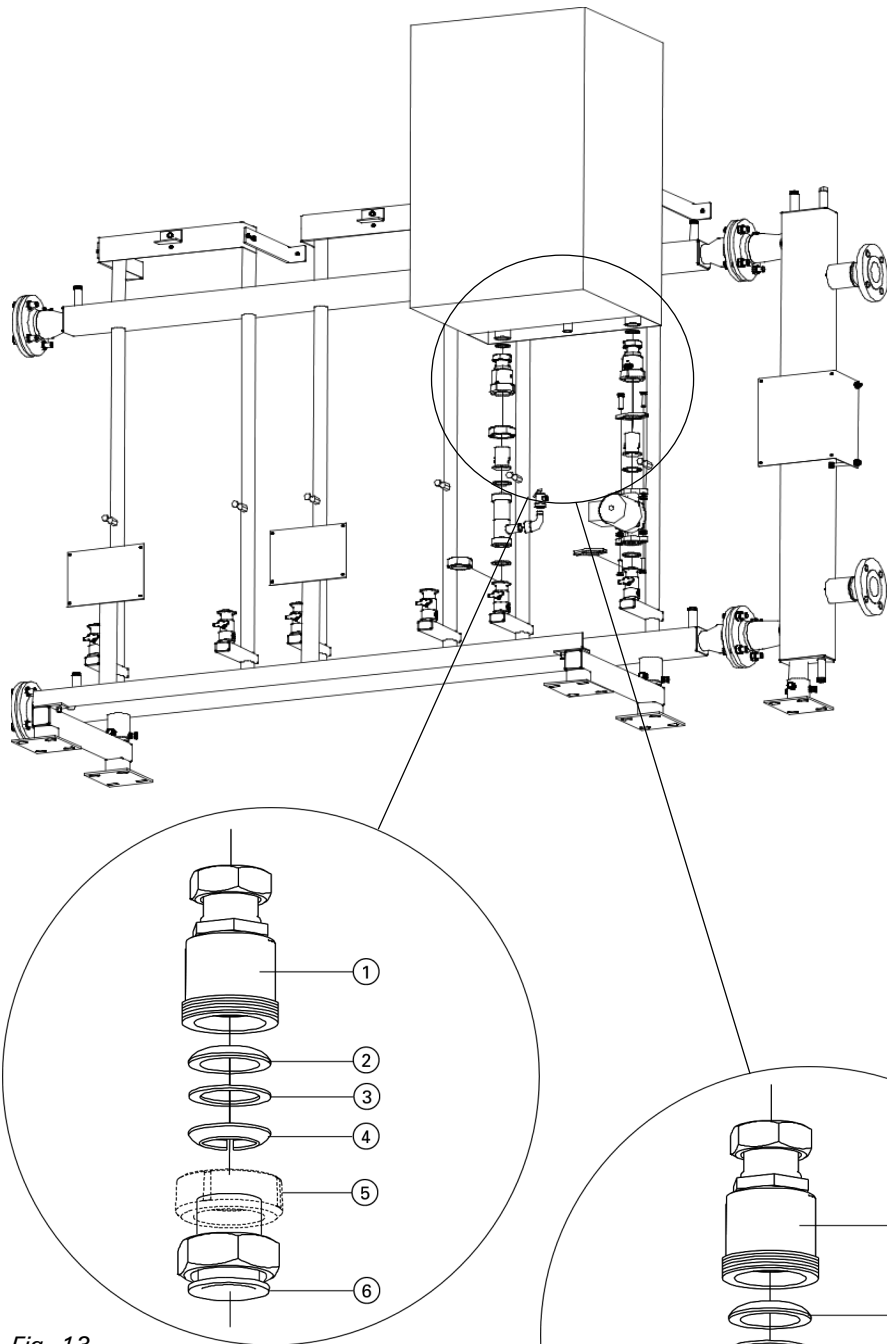


Fig. 13  
Adjustable transition connector for boiler supply connection

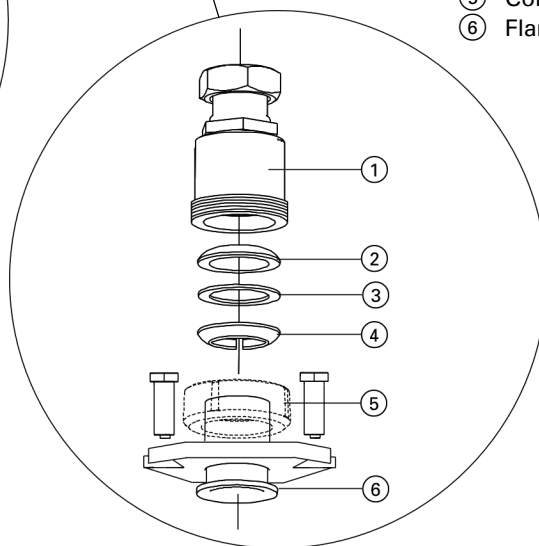


Fig. 14  
Adjustable transition connector for boiler return connection

# Dimensions, 2-Boiler Manifold with Low-Loss Header, Model 200/120

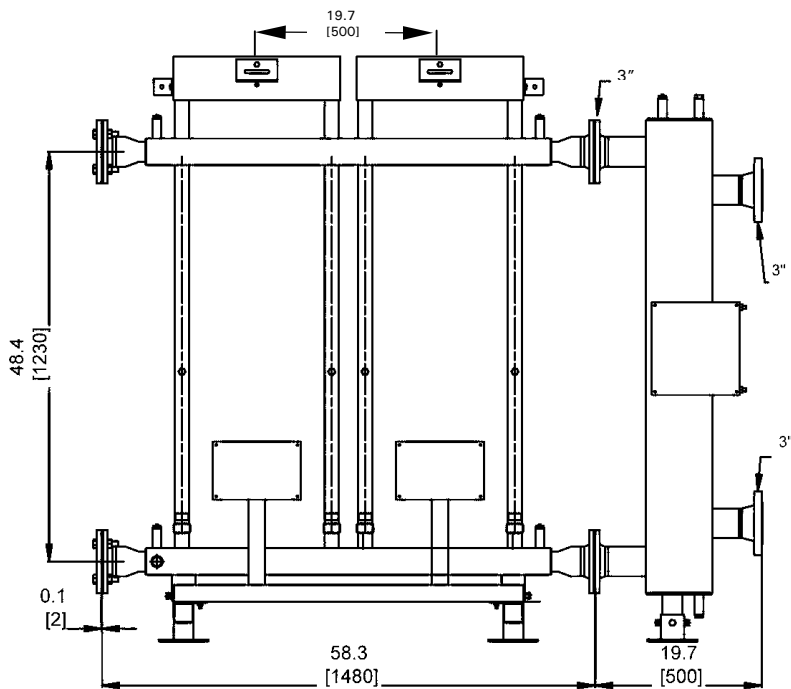


Fig. 14  
Front view

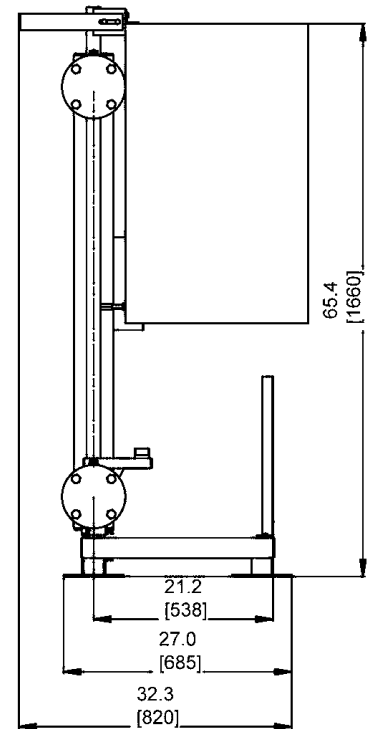


Fig. 15  
Side view

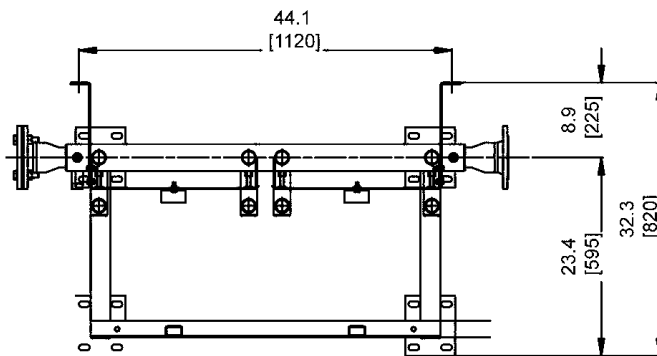


Fig. 16  
Top view

**Note:**  
Dimensions are shown as millimeters [in brackets] and inches.

## IMPORTANT

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 900 mm / 3 ft. to 500 mm / 1.7 ft.

# Dimensions, 3-Boiler Manifold with Low-Loss Header, Model 250/150

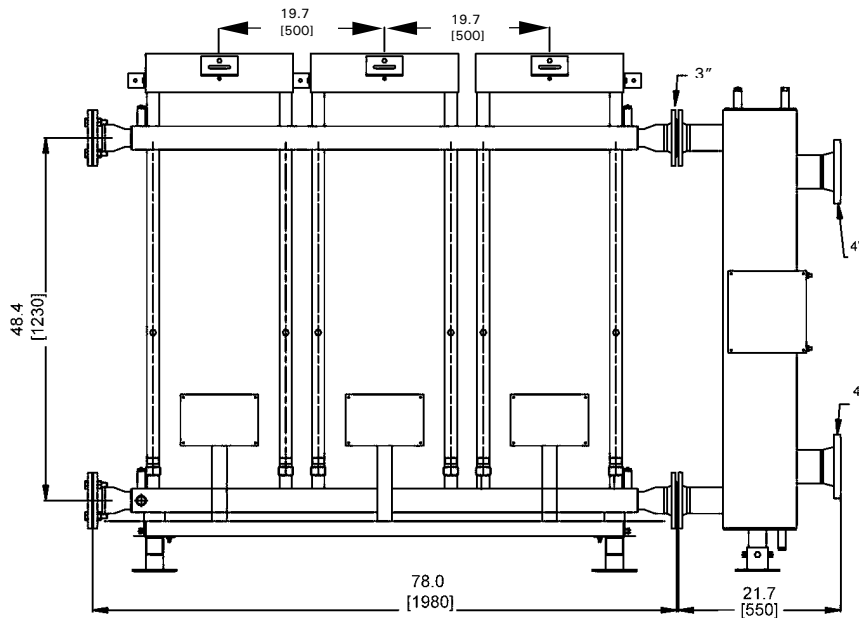


Fig. 17  
Front view

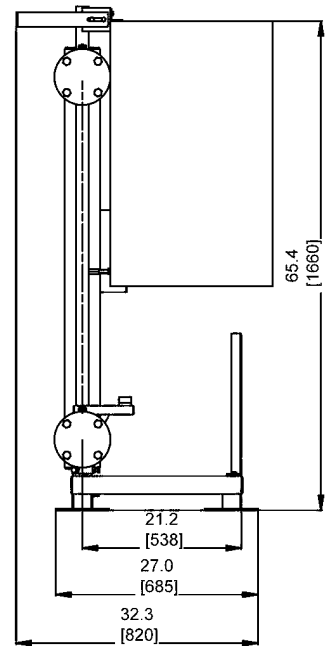


Fig. 18  
Side view

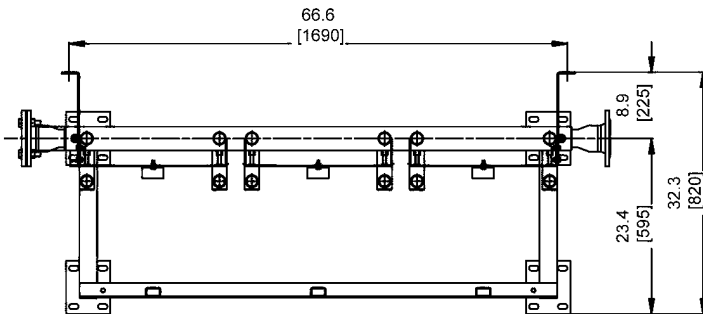


Fig. 19  
Top view

**Note:**  
Dimensions are shown as millimeters [in brackets] and inches.

## IMPORTANT

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 900 mm / 3ft. to 500 mm / 1.7 ft.

# Dimensions, 4-Boiler Manifold with Low-Loss Header, Model 300/200

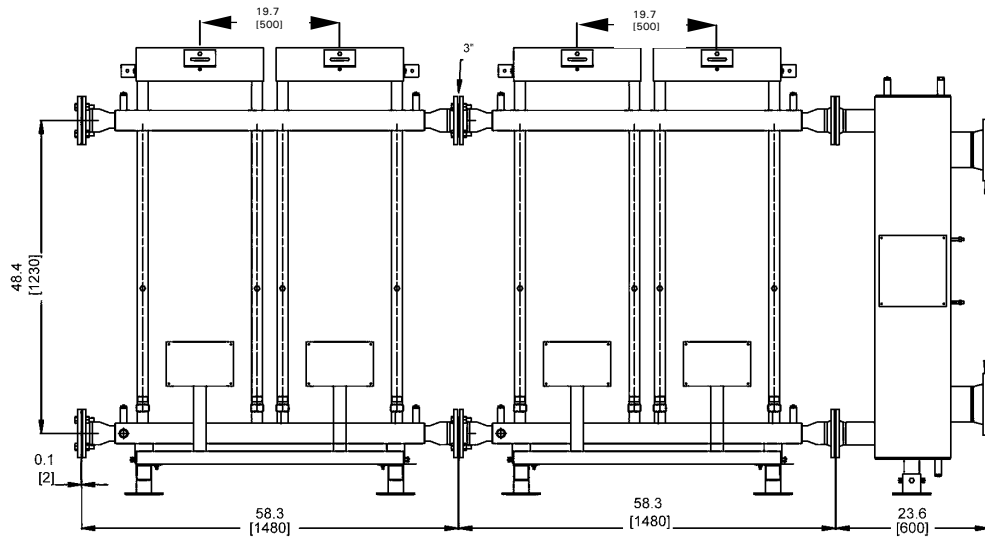


Fig. 20  
Front view

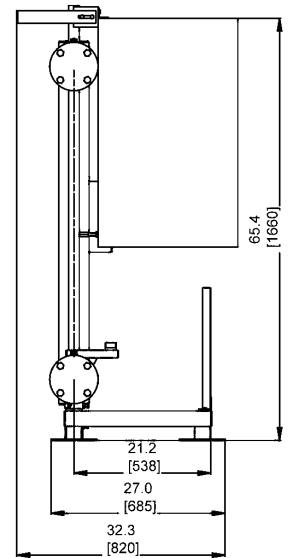


Fig. 21  
Side view

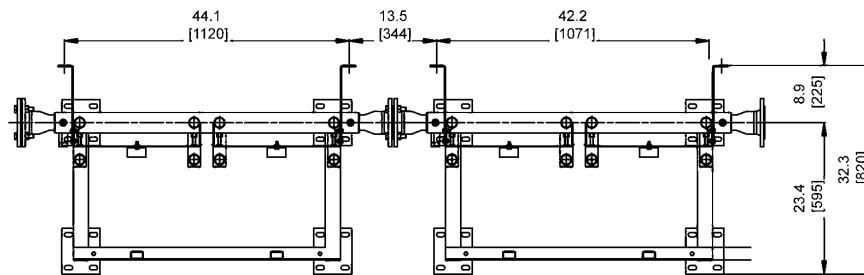


Fig. 22  
Top view

**Note:**  
Dimensions are shown as millimeters [in brackets] and inches.

For corner installations see following page.

## IMPORTANT

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 900 mm / 3 ft. to 500 mm / 1.7 ft.

# Dimensions, 4-Boiler Manifold with Low-Loss Header, Model 300/200

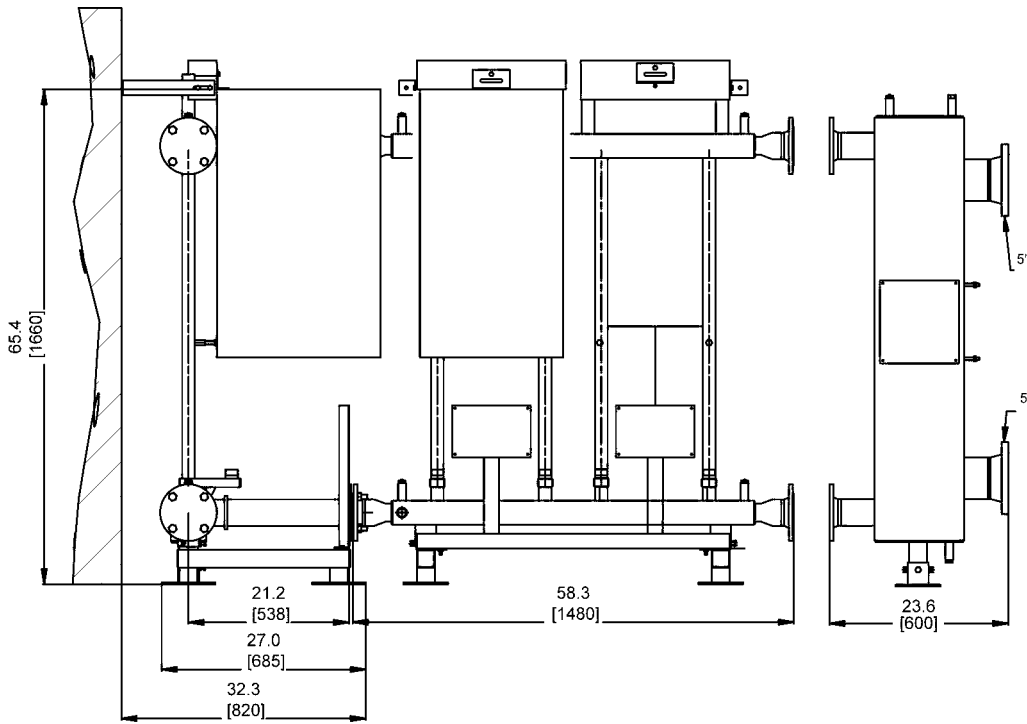


Fig. 23  
Front view

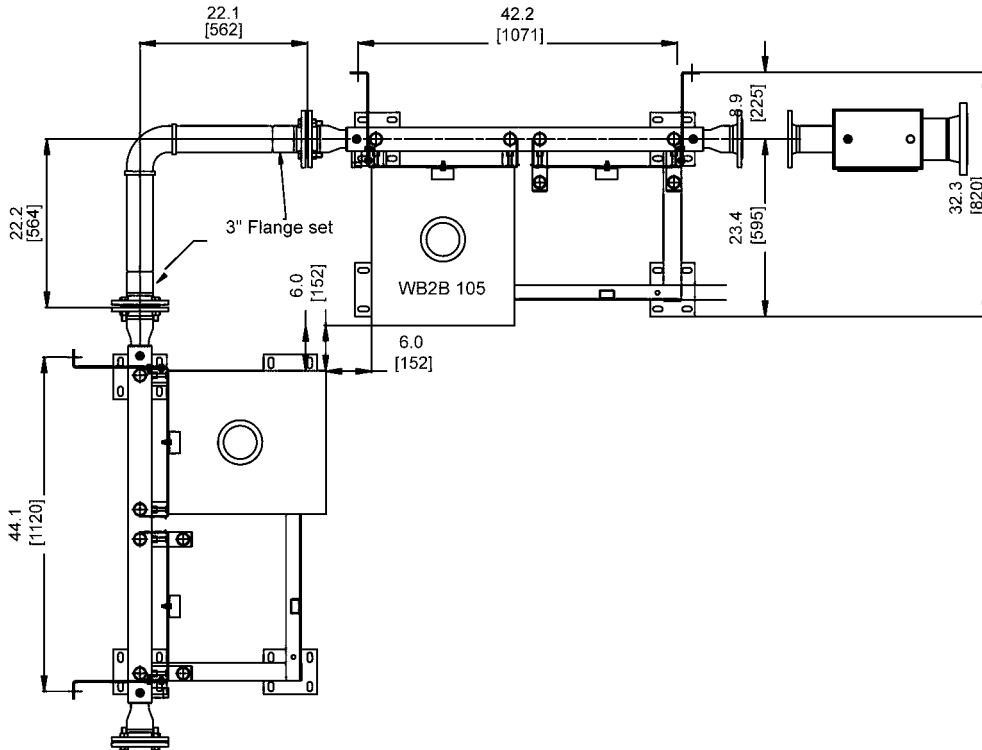


Fig. 24  
Top view

**Note:**  
Dimensions are shown as millimeters [in brackets] and inches.

# Parts List

## Multiple Boiler Low-Loss Distribution Manifold

For **VITODENS 200-W WB2B** Series

Z008 013	2-Boiler LLH Distribution Manifold
Z008 014	3-Boiler LLH Distribution Manifold (shown)
Z008 015	4-Boiler LLH Distribution Manifold

### Ordering Replacement Parts:

Please provide serial number when ordering Replacement parts. Order replacement components From your Viessmann distributor.

### Shipping Overview

2-Boiler Low-Loss Distribution Manifold	Z008 013
consisting of:	
100 2-Boiler Manifold	1 x 7424 325
200 200/100 Low-Loss Header	1 x 7424 328
300 Fittings 1 (boiler fittings)	2 x 7424 331
400 Fittings 2 (rack fittings)	1 x 7438 492
500 Fittings 3 (adjustable legs)	1 x 7438 494
600 Fittings 4 (low-loss header hardware)	1 x 7438 495

3-Boiler Low-Loss Distribution Manifold	Z008 014
consisting of:	
100 3-Boiler Manifold	1 x 7424 326
200 250/150 Low-Loss Header	1 x 7424 329
300 Fittings 1 (boiler fittings)	3 x 7424 331
400 Fittings 2 (rack fittings)	1 x 7438 492
500 Fittings 3 (adjustable legs)	1 x 7438 494
600 Fittings 4 (low-loss header hardware)	1 x 7438 495

4-Boiler Low-Loss Distribution Manifold	Z008 015
consisting of:	
100 2-Boiler Manifold	2 x 7424 325
200 300/200 Low-Loss Header	1 x 7424 330
300 Fittings 1 (boiler fittings)	4 x 7424 331
400 Fittings 2 (rack fittings)	2 x 7438 492
500 Fittings 3 (adjustable legs)	2 x 7438 494
600 Fittings 4 (low-loss header hardware)	1 x 7438 495

### Parts

see page 14

Ⓐ Serial No. Location

\*1 Blind flanges with gaskets shipped mounted to boiler manifold

### 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.

### IMPORTANT

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

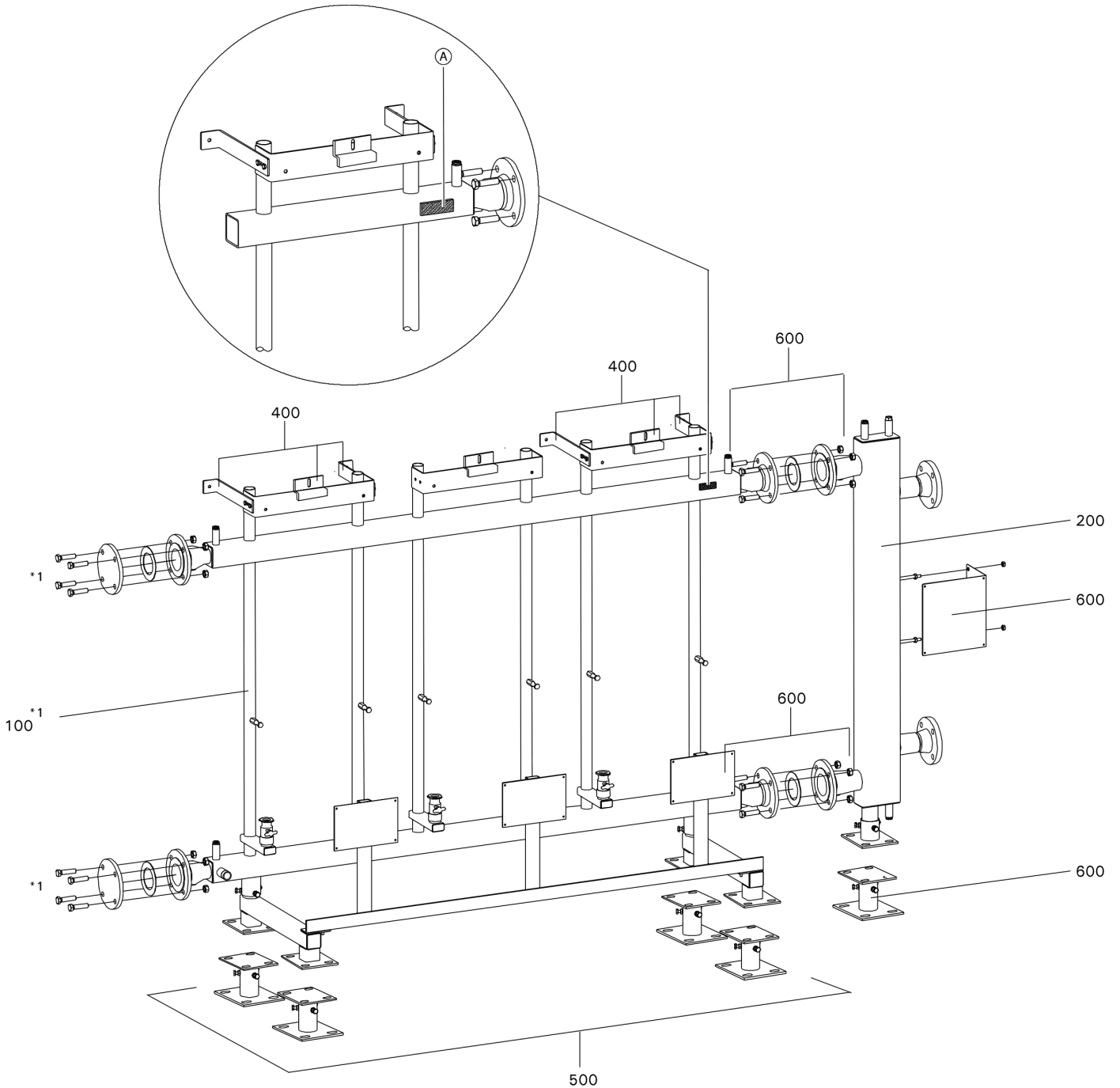
### IMPORTANT

Do not install boiler manifold free-standing; manifold shall be affixed to a wall capable of handling the weight of the boilers.

# Parts List *(continued)*

## Multiple Boiler Low-Loss Distribution Manifold

For **VITODENS 200-W WB2B** Series



## Parts List *(continued)*

### Multiple Boiler Low-Loss Distribution Manifold

For **VITODENS 200-W WB2B** Series

#### Parts

- 101 Gasket, 3" ANSI
- 102 Ball valve, 1 ¼" Ø \*2
- 201 Air bleed cap, ½"
- 301 Accessory pack, boiler connection fittings (for one boiler) including fasteners for boiler (not illustrated)
- 302 Adjustable transition connector, 1 ¼" Ø for return with integrated flow-check valve
- 303 Adjustable transition connector, 1 ¼" Ø for supply
- 304 Connection nipple, 1 ¼" Ø
- 601 Accessory pack  
gaskets and fasteners for LLH connection

#### Not Illustrated

- 202 Installation Instructions
- 203 Parts List
- 401 Accessory pack  
anchors for adjustable legs (set of 24)
- 402 Accessory pack  
M10 fasteners for wall brackets  
M10 fasteners for adjustable legs
- 700 Insulation for boiler manifold (optional)
- 701 Insulation for low-loss header (optional)
- 800 Flange set (optional)  
to install 90° elbow set (elbow set field supplied)

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

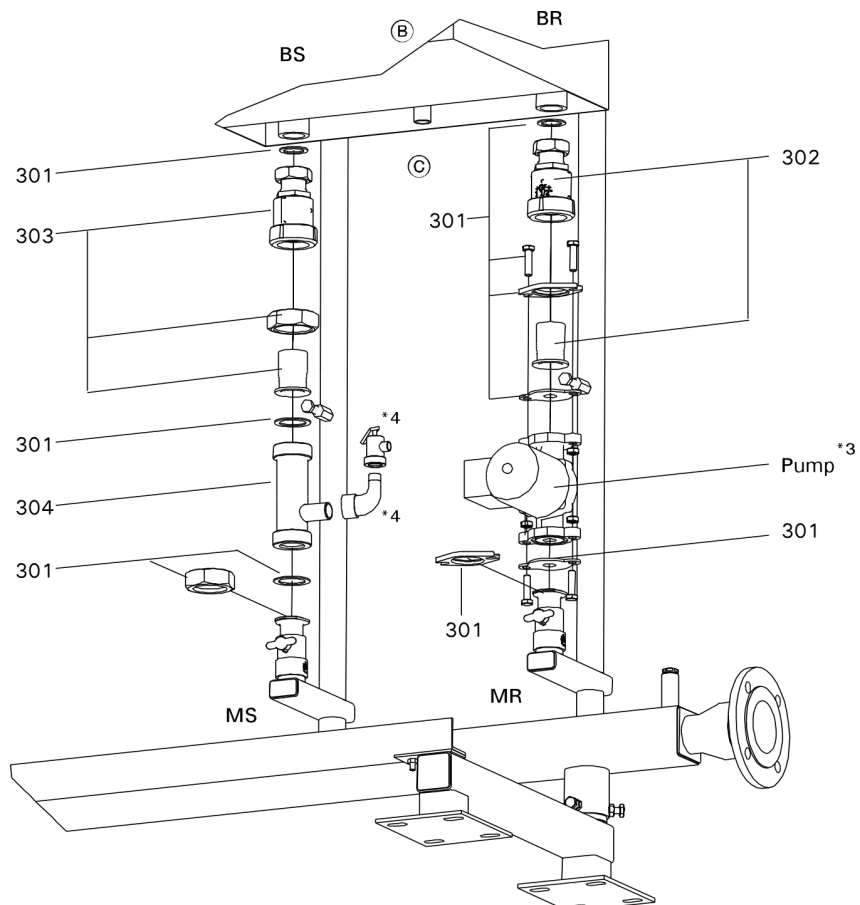
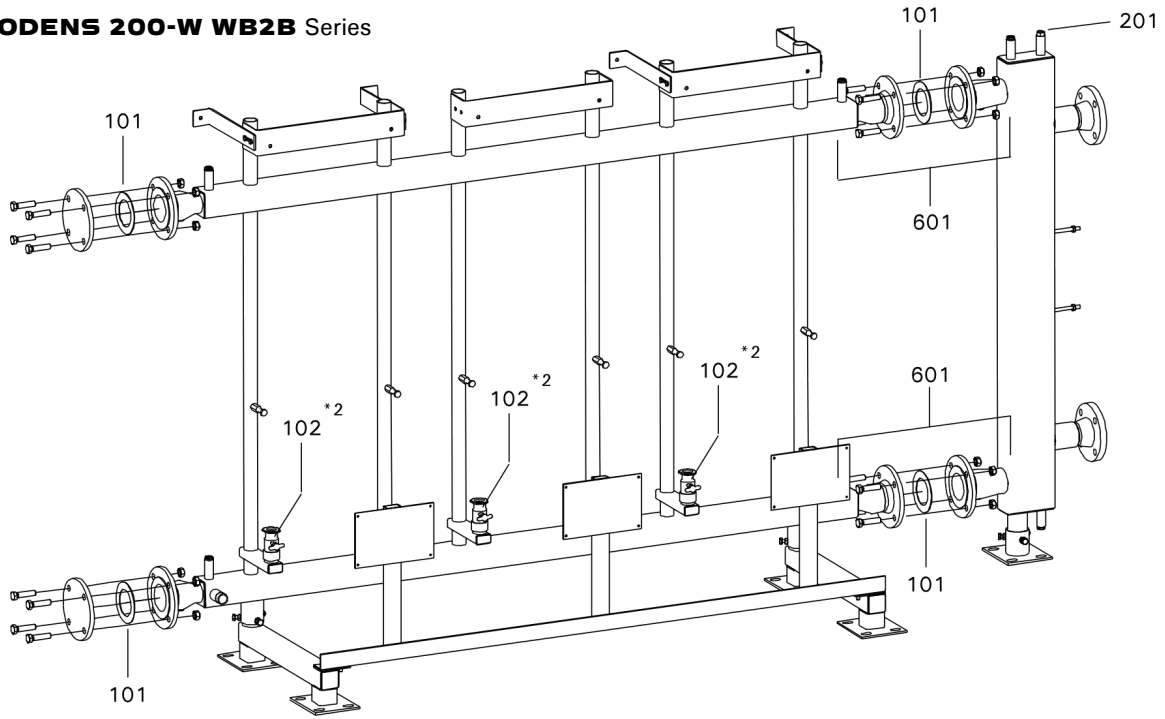
- Ⓑ See separate Parts List  
for Vitodens boiler
- Ⓒ See separate Parts List  
for Vitodens installation fittings

- \*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

# Parts List *(continued)*

## Multiple Boiler Low-Loss Distribution Manifold

For **VITODENS 200-W WB2B** Series





Viessmann Manufacturing Company (U.S.) Inc.  
45 Access Road  
Warwick, Rhode Island • 02886 • USA  
1-800-288-0667 • Fax (401) 732-0590  
www.viessmann-us.com • info@viessmann-us.com

Viessmann Manufacturing Company Inc.  
750 McMurray Road  
Waterloo, Ontario • N2V 2G5 • Canada  
1-800-387-7373 • Fax. (519) 885-0887  
www.viessmann.com • info@viessmann.ca

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