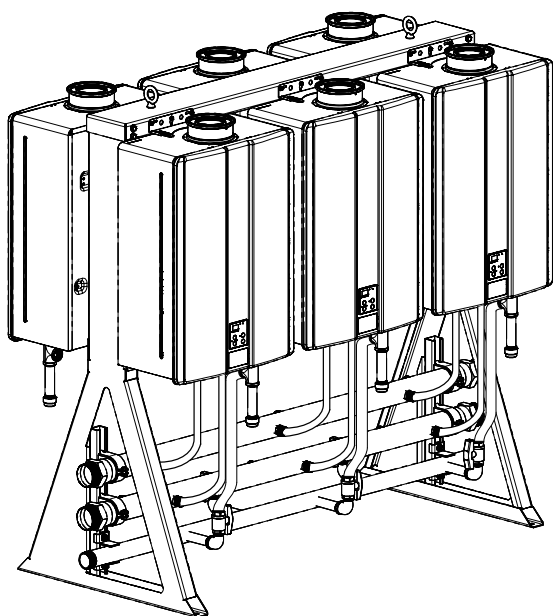


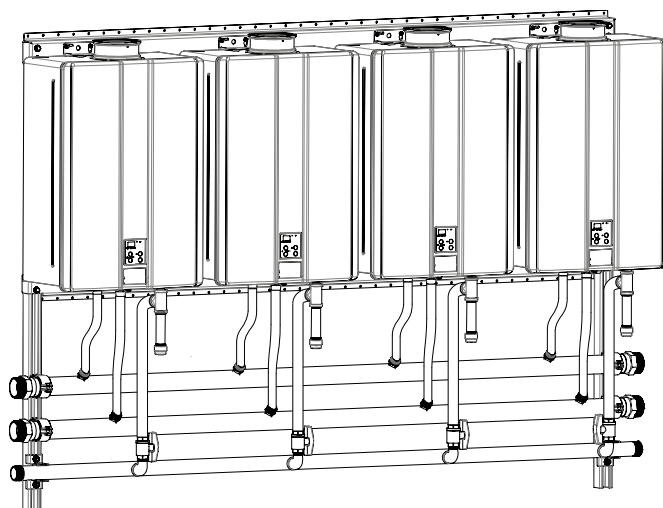
## Features and Benefits

The Rinnai TRS is designed to make installing multiple tankless units easier and faster:

- Pre-assembled rack with water heaters installed
- Racks can be used with RU98 indoor or outdoor water heaters
- Wall mounted or free standing options
- Fully assembled TRS (with water heaters) is designed to fit through a standard 32 inch doorway
- Available with Rinnai's Common Venting System or with standard concentric venting
- Gas and water manifolds are properly sized
- Rinnai MSB electronic control system available for linking up to 25 units. Rinnai EZConnect™ available for linking 2 units.
- MCC-91 commercial controller available for temperatures between 140°F and 185°F
- Flexible pipe for manifold / water heater connections
- Drain tees for gas sediment traps
- Reinforced lifting eyebolts on free standing racks
- Marine grade powdered coated aluminum
- Threaded pipe ends for maximum flexibility for installations
- Isolation and Pressure Relief valves included and installed on each water heater



Free Standing Rack  
(6 water heaters)



Wall Mounted Rack  
(4 water heaters)

## Tankless Rack System (TRS)

Part No.*	Rack type	Rack P/N	Configuration
TRW02iN	2-unit interior wall mount rack, NG	RW2	
TRW02eN	2-unit exterior wall mount rack, NG	RW2	
TRW02iP	2-unit interior wall mount rack, LP	RW2	
TRW02eP	2-unit exterior wall mount rack, LP	RW2	
TRW03iN	3-unit interior wall mount rack, NG	RW3	
TRW03eN	3-unit exterior wall mount rack, NG	RW3	
TRW03iP	3-unit interior wall mount rack, LP	RW3	
TRW03eP	3-unit exterior wall mount rack, LP	RW3	
TRW04iN	4-unit interior wall mount rack, NG	RW4	
TRW04eN	4-unit exterior wall mount rack, NG	RW4	
TRW04iP	4-unit interior wall mount rack, LP	RW4	
TRW04eP	4-unit exterior wall mount rack, LP	RW4	
TRS02iN	2-unit interior free standing rack, NG	RS4	Back to Back 
TRS02eN	2-unit exterior free standing rack, NG	RS4	
TRS02iP	2-unit interior free standing rack, LP	RS4	
TRS02eP	2-unit exterior free standing rack, LP	RS4	
TRS02iLiN	2-unit INLINE interior free standing rack, NG	RS4	Inline (facing same direction) 
TRS02iLeN	2-unit INLINE exterior free standing rack, NG	RS4	
TRS02iLiP	2-unit INLINE interior free standing rack, LP	RS4	
TRS02iLeP	2-unit INLINE exterior free standing rack, LP	RS4	
TRS03iN	3-unit interior free standing rack, NG	RS4	
TRS03eN	3-unit exterior free standing rack, NG	RS4	
TRS03iP	3-unit interior free standing rack, LP	RS4	
TRS03eP	3-unit exterior free standing rack, LP	RS4	
TRS04iN	4-unit interior free standing rack, NG	RS4	
TRS04eN	4-unit exterior free standing rack, NG	RS4	
TRS04iP	4-unit interior free standing rack, LP	RS4	
TRS04eP	4-unit exterior free standing rack, LP	RS4	
TRS03iLiN	3-unit INLINE interior free standing rack, NG	RS6	
TRS03iLeN	3-unit INLINE exterior free standing rack, NG	RS6	
TRS03iLiP	3-unit INLINE interior free standing rack, LP	RS6	
TRS03iLeP	3-unit INLINE exterior free standing rack, LP	RS6	
TRS05iN	5-unit interior free standing rack, NG	RS6	
TRS05eN	5-unit exterior free standing rack, NG	RS6	
TRS05iP	5-unit interior free standing rack, LP	RS6	
TRS05eP	5-unit exterior free standing rack, LP	RS6	
TRS06iN	6-unit interior free standing rack, NG	RS6	
TRS06eN	6-unit exterior free standing rack, NG	RS6	
TRS06iP	6-unit interior free standing rack, LP	RS6	
TRS06eP	6-unit exterior free standing rack, LP	RS6	

Part no. system: TR = tankless rack; W = wall mount; S = stand alone; IL = inline; 2/3/4/5/6 = no. of water heaters; i/e = interior/exterior; NG/LP = fuel type

Description	(2) RU98 Wall Mount	(3) RU98 Wall Mount	(4) RU98 Wall Mount
<b>Top Level Part No.</b>	<b>RW2</b>	<b>RW3</b>	<b>RW4</b>
<b>Rack Frame - Specifications</b>	<b>RW2</b>	<b>RW3</b>	<b>RW4</b>
Water Heater Model	RU98i/e N/P		
Frame (HxLxD) - in	54.81 x 41.50 x 12.75	54.81 x 62.00 x 12.75	54.81 x 82.50 x 12.75
Crate Dimensions (HxLxD) - in	62 x 55 x 36	62 x 75 x 36	62 x 95 x 36
Weight - Assembly w/o WHs - lbs	44.1	63.4	82.6
Weight - Water Heaters - lbs	131.4	197.1	262.8
Weight - Fully Assembled - lbs	175.5	260.5	345.4
Weight - Packaging - lbs	121.0	142.0	148.0
Weight - Shipping (total) - lbs	296.5	402.5	493.4

Description	(4/4) RU98 Free Stand (b)	(3/4) RU98 Free Stand (b)	(2/4) RU98 Free Stand (b)
<b>Top Level Part No.</b>	<b>RS4-4</b>	<b>RS4-3</b>	<b>RS4-2</b>
<b>Rack Frame - Specifications</b>	<b>RF4</b>		
Water Heater Model	RU98i/e N/P		
Frame (HxLxD) - in	55.56 x 41.50 x 28.5		
Crate Dimensions (HxLxD) - in	62 x 55 x 36		
Weight - Assembly w/o WHs - lbs	96.1	88.1	80.1
Weight - Water Heaters - lbs	262.8	197.1	131.4
Weight - Fully Assembled - lbs	358.9	285.2	211.5
Weight - Packaging - lbs	129.0	129.0	129.0
Weight - Shipping (total) - lbs	487.9	414.2	340.5

Description	(6/6) RU98 Free Stand (b)	(5/6) RU98 Free Stand (b)	(3/6) RU98 Free Stand (b)
<b>Top Level Part No.</b>	<b>RS6-6</b>	<b>RS6-5</b>	<b>RS6-3</b>
<b>Rack Frame - Specifications</b>	<b>RF6</b>		
Water Heater Model	RU98i/e N/P		
Frame (HxLxD) - in	55.56 x 62.00 x 28.5		
Crate Dimensions (HxLxD) - in	62 x 75 x 36		
Weight - Assembly w/o WHs - lbs	124.6	116.6	153.1
Weight - Water Heaters - lbs	394.2	328.5	197.1
Weight - Fully Assembled - lbs	518.8	445.1	350.2
Weight - Packaging - lbs	148.0	148.0	148.0
Weight - Shipping (total) - lbs	666.8	593.1	498.2

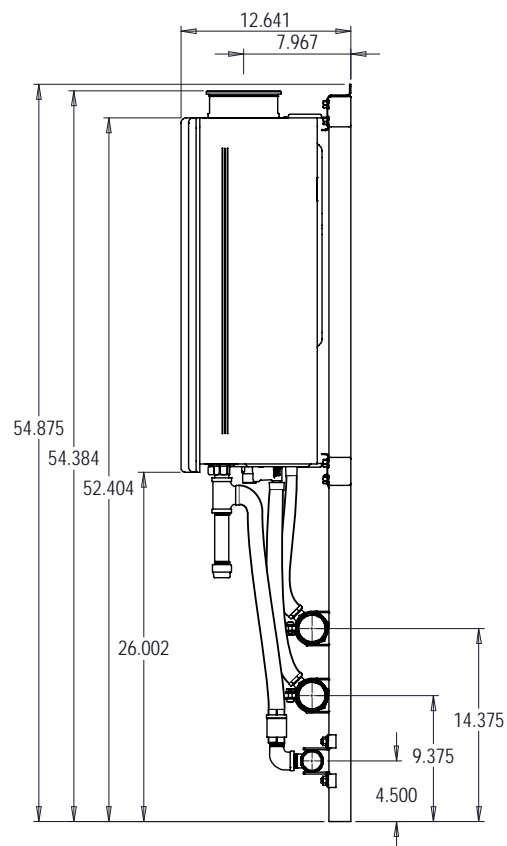
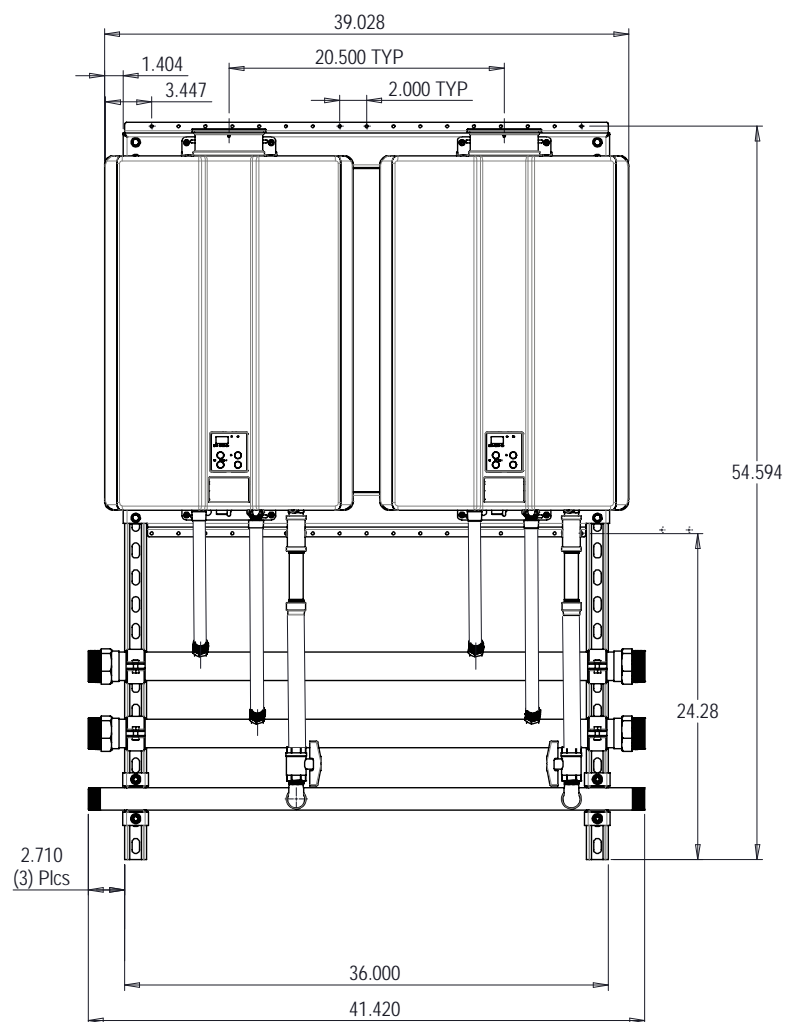
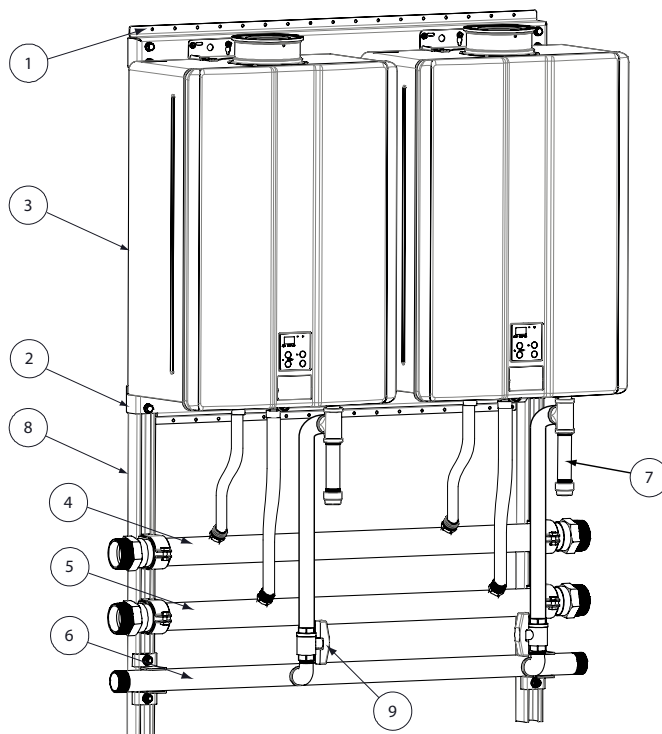
Description	(2, 3, 4) RU98 Wall Mount	(4/4, 3/4, 2/4) RU98 Free Stand (b)	(6/6, 5/6, 3/6) RU98 Free Stand (b)
Top Level Part No.	RW2, RW3, RW4	RS4-4, RS4-3, RS4-2	RS6-6, RS6-5, RS6-3
<b>Rack Frame - Specifications</b>	<b>RW2, RW3, RW4</b>	<b>RF4</b>	<b>RF6</b>
Frame Rail Type	Sheet Metal	Sheet Metal	Sheet Metal
Frame Material	0.090 5052-H32	0.090 5052-H32	0.090 5052-H32
Frame Finish	Powder Coat	Powder Coat	Powder Coat
Color	Gray	Gray	Gray
<b>Water &amp; Gas Connections</b>			
Hot Water Trunk Line Diameter	2"	2"	2-1/2"
Cold Water Trunk Line Diameter	2"	2"	2-1/2"
Hot Water Trunk Line Material	Rigid Copper	Rigid Copper	Rigid Copper
Cold Water Trunk Line Material	Rigid Copper	Rigid Copper	Rigid Copper
Water Trunk Connection Type	2" MNPT	2" MNPT	2-1/2" MNPT
Water Header End Cap (field supplied)	2" FNPT	2" FNPT	2-1/2" FNPT
Hot Water Branch Line Diameter	3/4"	3/4"	3/4"
Cold Water Branch Line Diameter	3/4"	3/4"	3/4"
<b>Hot Water Branch Line Material</b>	<b>CSST</b>	<b>CSST</b>	<b>CSST</b>
<b>Cold Water Branch Line Material</b>	<b>CSST</b>	<b>CSST</b>	<b>CSST</b>
Gas Trunk Line Diameter	1-1/4" NPT	1-1/4" NPT	1-1/2" NPT
Gas Trunk Connection Type	1-1/4" MNPT	1-1/4" MNPT	1-1/2" MNPT
Gas Header End Cap (field supplied)	1-1/4" FNPT	1-1/4" FNPT	1-1/2" FNPT
Gas Trunk Line Material	Sch 40 Steel	Sch 40 Steel	Sch 40 Steel
Gas Branch Line Diameter	3/4"	3/4"	3/4"
<b>Gas Branch Line Material</b>	<b>PVC Over CSST</b>	<b>PVC Over CSST</b>	<b>PVC Over CSST</b>
<b>Gas Trunk Line Finish</b>	<b>Powder Coat</b>	<b>Powder Coat</b>	<b>Powder Coat</b>
<b>UniStrut Size</b>	<b>1-5/8" x 13/16"</b>	<b>1-5/8" x 1-5/8"</b>	<b>1-5/8" x 1-3/8"</b>
<b>UniStrut Material</b>	<b>14ga Steel / Zn</b>	<b>12ga S/S</b>	<b>12ga S/S</b>
<b>Hardware Material/Finish</b>	<b>Steel / Zn</b>	<b>S/S 18-8</b>	<b>S/S 18-8</b>
<b>Electrical Requirements</b> <b>(Installer shall provide electrical outlet connections)</b>	Each water heater requires 120 VAC, 60 Hz power source in a properly grounded circuit. RU98i: 64 W normal operation; 2 W standby; 146 W anti-frost protection. RU98e: 63 W normal operation; 2 W standby; 168 W anti-frost protection.		

BTU and Flow Rates for Common Vented RU98i/e (NG/LP)					
	2 RU98	3 RU98	4 RU98	5 RU98	6 RU98
Flow rate @ 70°F rise (gpm)	10.8	16.2	21.6	27.0	32.4
Flow rate @ 100°F rise (gpm)	7.6	11.4	15.2	19.0	22.8
Maximum input rate (Btuh)	398,000	597,000	796,000	995,000	1,194,000

## WALL MOUNT TRW02

NO	DESCRIPTION	QTY
1	Frame, Top	1
2	Frame, Bottom	1
3	Rinnai Tankless Indoor or Outdoor Unit	2
4	Manifold, Hot Water	1
5	Manifold, Cold Water	1
6	Manifold Gas	1
7	3/4" Dirt Leg	2
8	P1000 Unistrut Channel	2
9	3/4 FNPT Brass Ball Valve - Gas	2

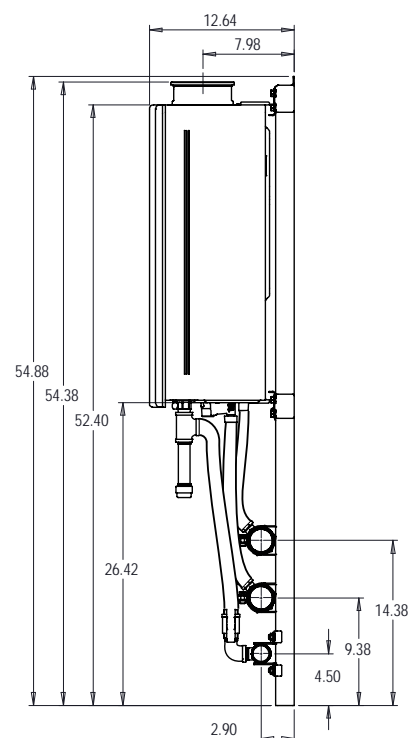
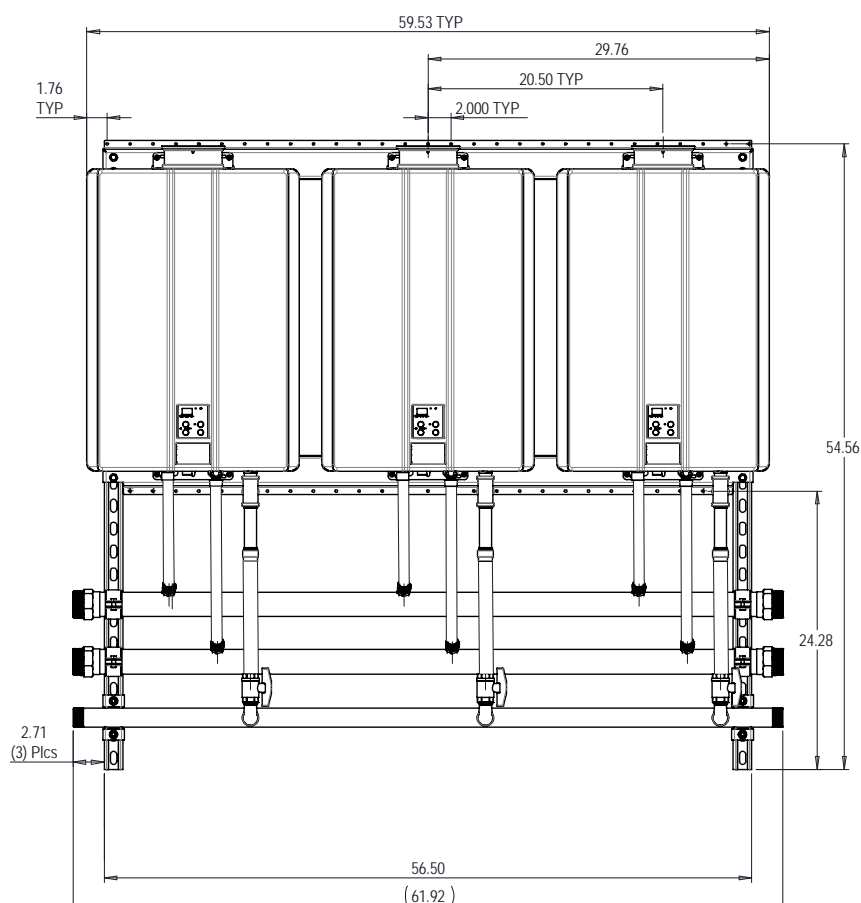
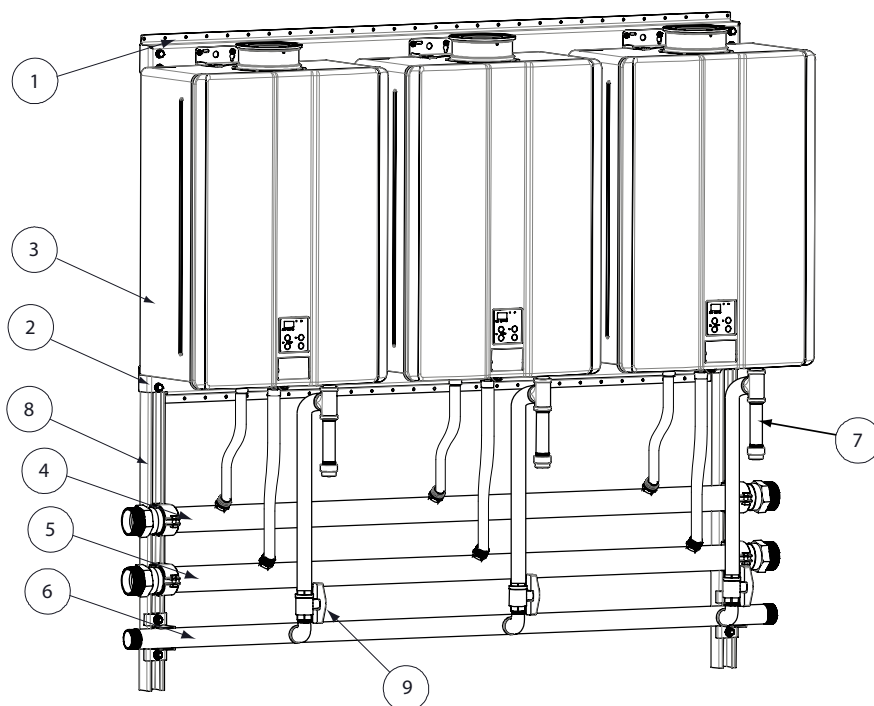
Water and gas flex lines are included on all rack systems.



## WALL MOUNT TRW03

NO	DESCRIPTION	QTY
1	Frame, Top	1
2	Frame, Bottom	1
3	Rinnai Tankless Indoor or	3
4	Manifold, Hot Water	1
5	Manifold, Cold Water	1
6	Manifold, Gas	1
7	3/4" Dirt Leg	3
8	P1000 Unistrut Channel	2
9	3/4 FNPT Brass Ball Valve	3

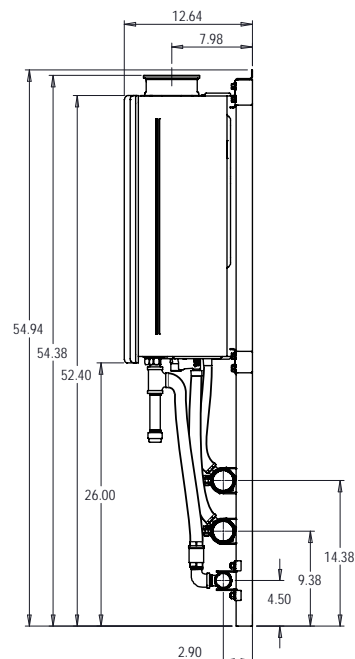
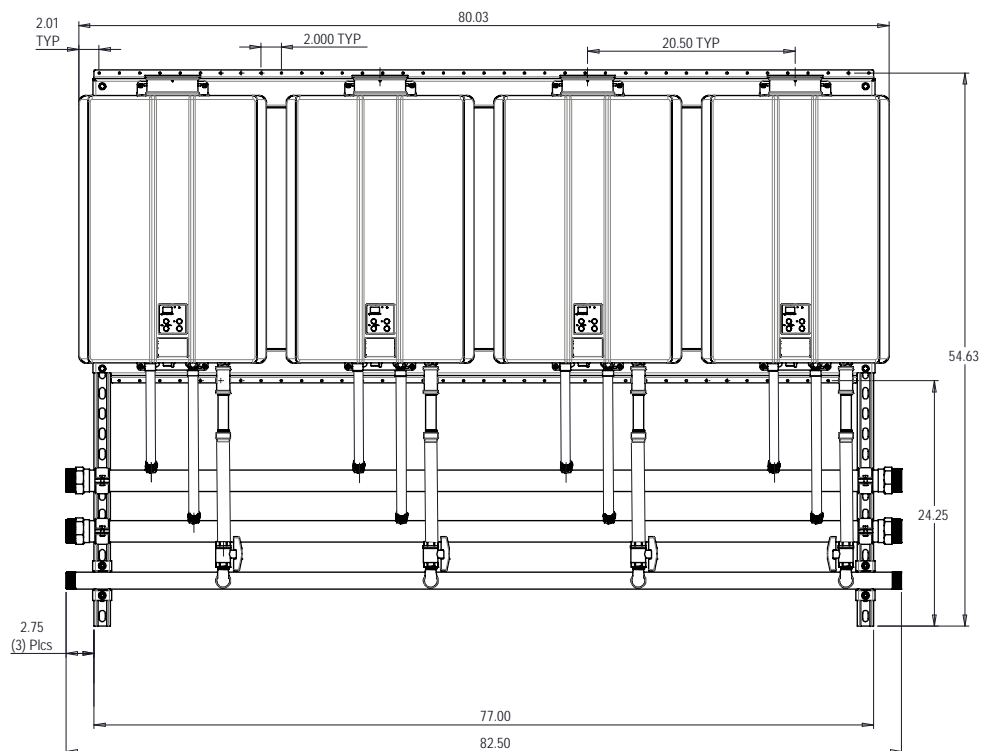
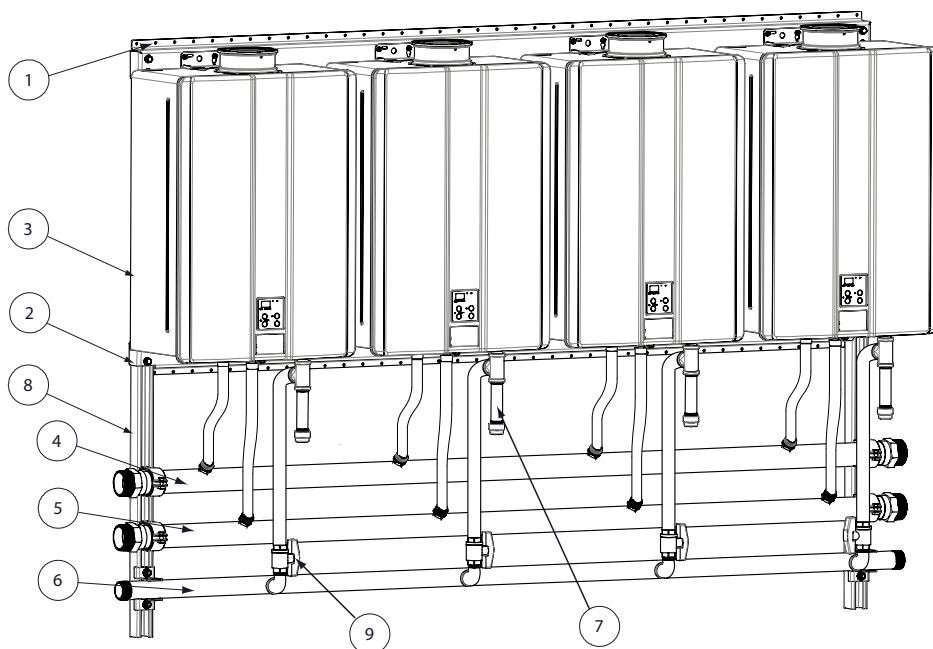
Water and gas flex lines are included on all rack systems.



## WALL MOUNT TRW04

NO	DESCRIPTION	QTY
1	Frame, Top	1
2	Frame, Bottom	1
3	Rinnai Tankless Indoor or Outdoor Unit	4
4	Manifold, Hot Water	1
5	Manifold, Cold Water	1
6	Manifold, Gas	1
7	3/4" Dirt Leg	4
8	P1000 Unistrut Channel	2
9	3/4 FNPT Brass Ball	4

Water and gas flex lines are included on all rack systems.



## FREE STANDING TRS04

NO	DESCRIPTION	QTY
1	Frame	1
2	Lifting Eyebolt	2
3	Rinnai Tankless Indoor or Outdoor Unit	4*
4	Manifold, Hot Water	1
5	Manifold, Cold Water	1
6	Manifold, Gas	1
7	3/4" Dirt Leg	4
8	Unistrut	2
9	3/4 FNPT Brass Ball Valve - Gas	4

\*Options for this free standing rack include:



4 water heaters



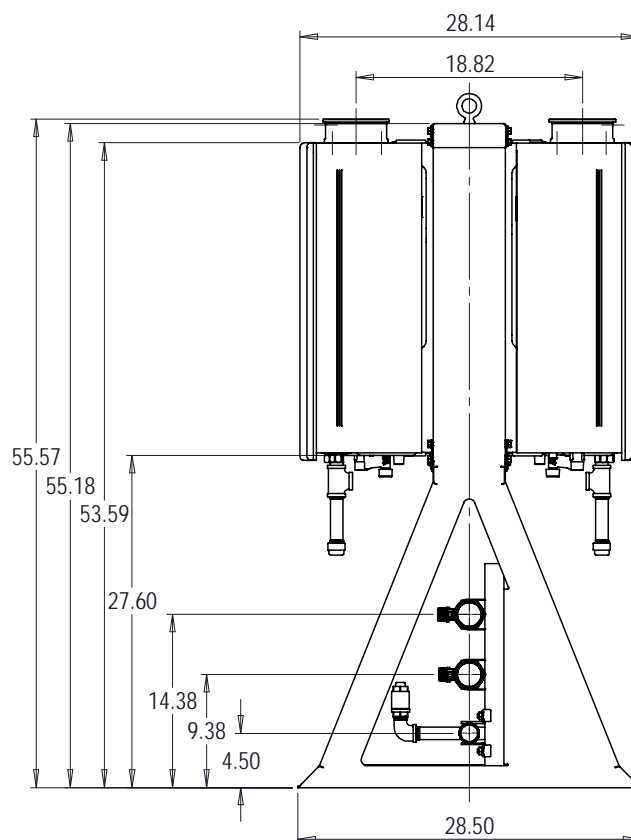
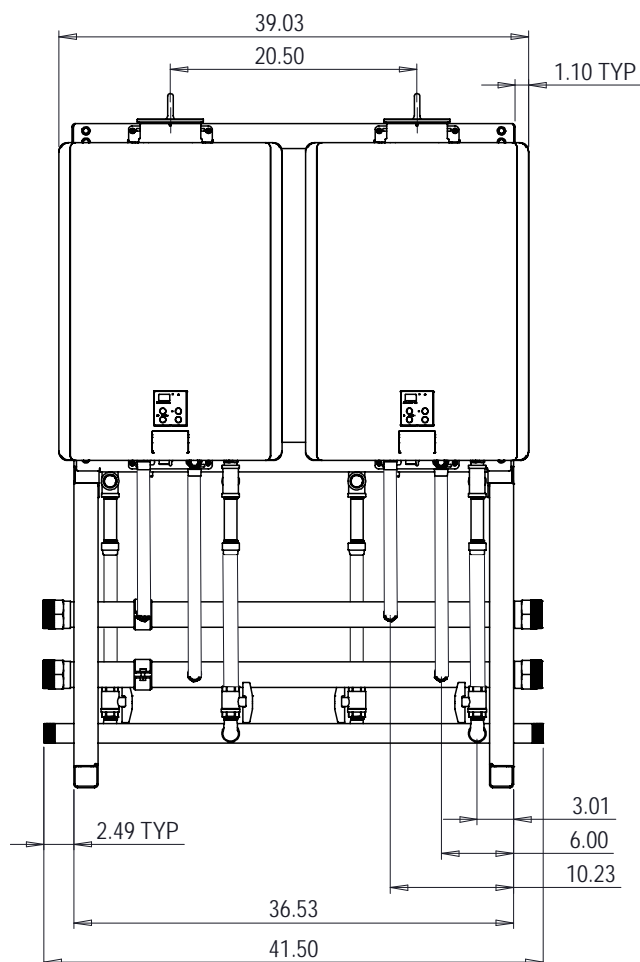
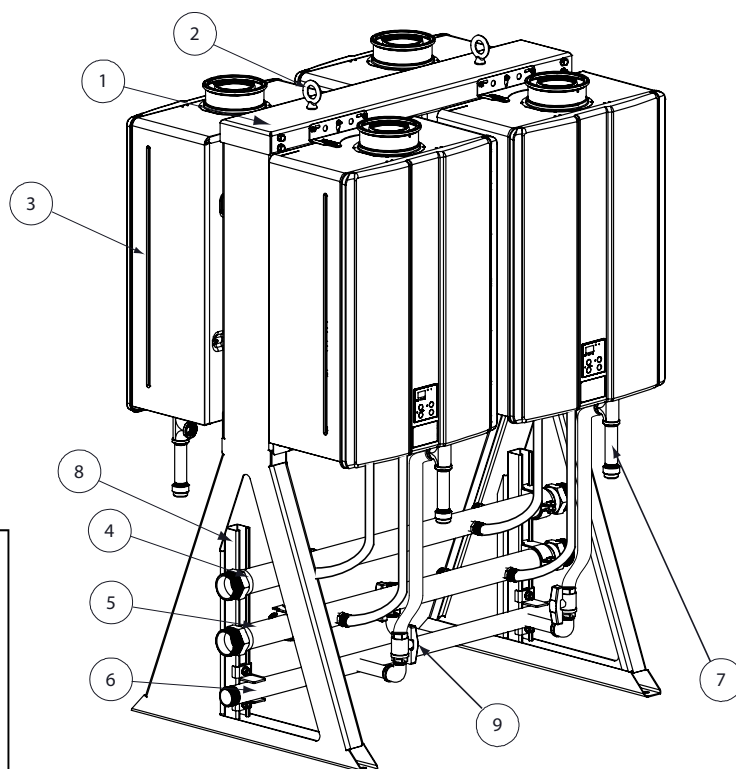
3 water heaters



2 water heaters  
in-line



2 water heaters  
back to back



Water and gas flex lines are included on all rack systems.

## FREE STANDING TRS06

NO	DESCRIPTION	QTY
1	Frame	1
2	Lifting Eyebolt	2
3	Rinnai Tankless Indoor or Outdoor Unit	6*
4	Manifold, Hot Water	1
5	Manifold, Cold Water	1
6	Manifold, Gas	1
7	3/4" Dirt Leg	6
8	Unistrut	2
9	3/4 FNPT Brass Ball Valve - Gas	6

\*Options for this free standing rack include:



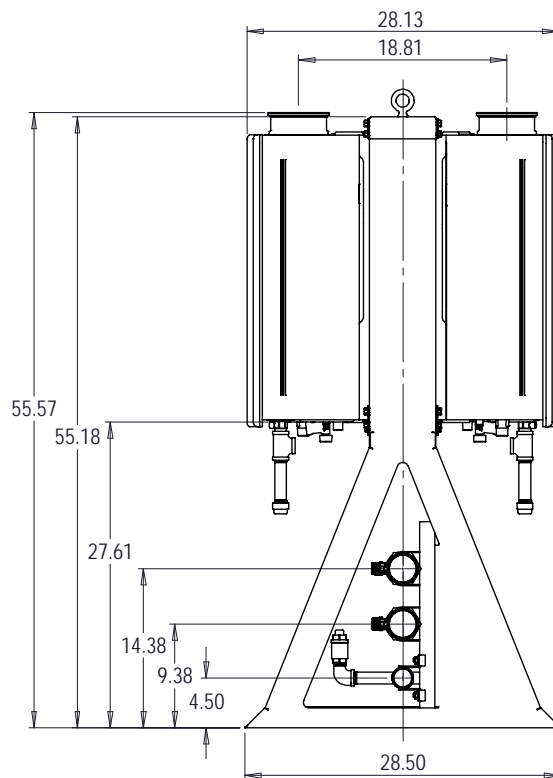
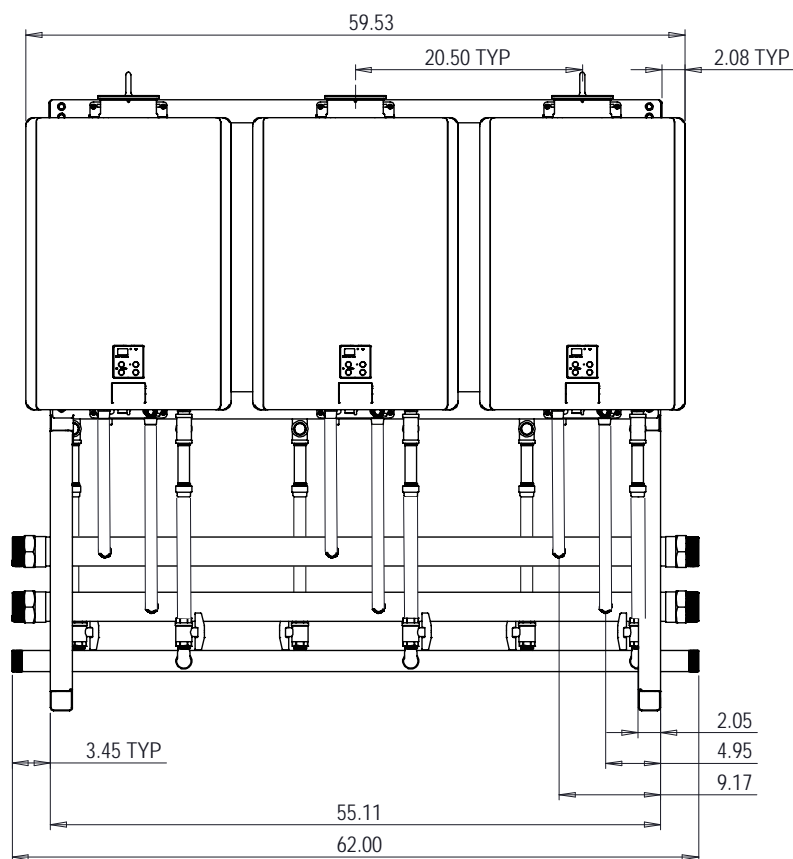
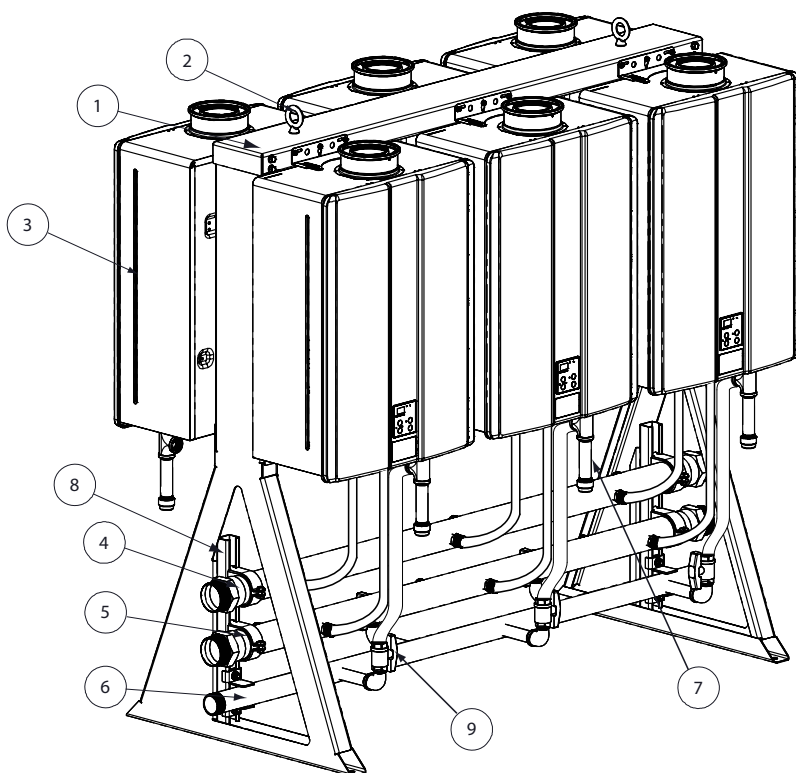
6 water heaters



5 water heaters



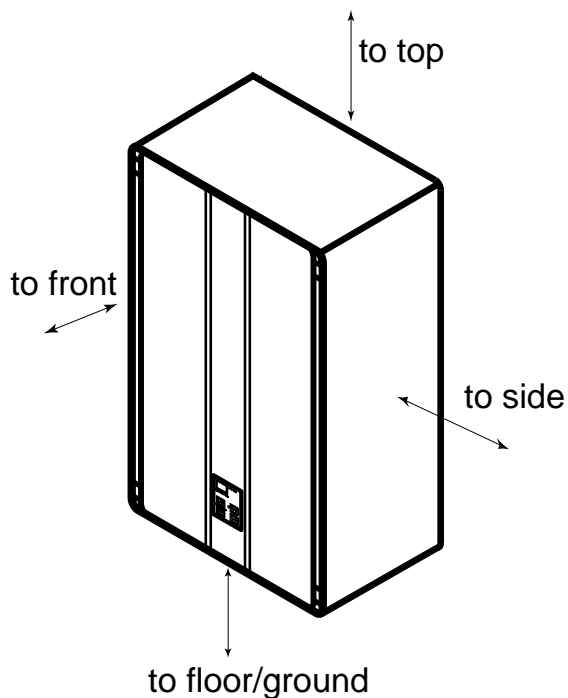
3 water heaters, in-line



Water and gas flex lines are included on all rack systems.

### Clearances

Install the rack system so that the clearances shown below (specified for the water heater in the RU98i and RU98e installation manual) are followed.



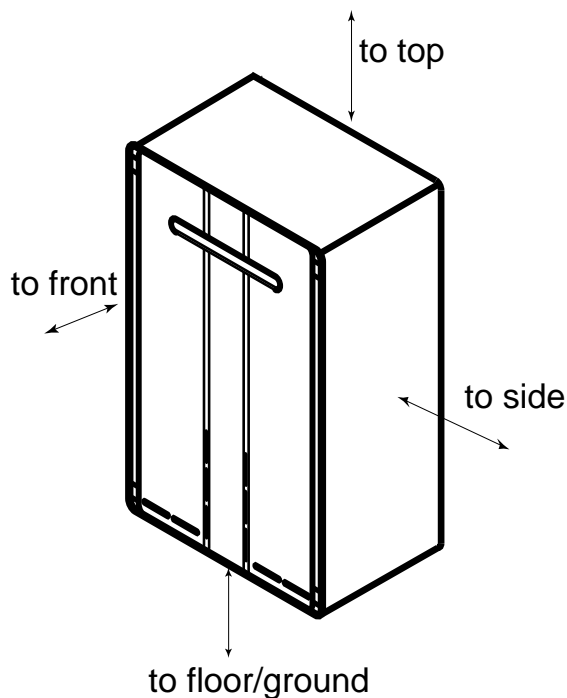
**Indoor models: RU98i**

	to Combustibles inches (mm)	to Non- Combustibles inches (mm)
<b>Top of Heater</b>	6 * (152)	2 *(51)
<b>Back of Heater</b>	0 (zero)	0 (zero)
<b>Front of Heater</b>	6 (152)	6 (152)
<b>Sides of Heater</b>	2 (51)	1/2 (13)
<b>Ground/Bottom</b>	12 (305)	12 (305)
<b>Vent</b>	0 (zero)	0 (zero)

\* 0 inches from vent components and condensate drain line.

The clearance for servicing is 24 inches in front of the water heater.

For closet installation, clearance is 6 inches (152 mm) from the front.



**Outdoor models: RU98e**

	to Combustibles inches (mm)	to Non- Combustibles inches (mm)
<b>Top of Heater</b>	12 (305)	2 (51)
<b>Back of Heater</b>	0 (zero)	0 (zero)
<b>Front (panel)</b>	24 (610)	0 (zero)
<b>Front (exhaust)</b>	24 (610)	24 (610)
<b>Sides of Heater</b>	6 (152)	1/8 (3.2)
<b>Ground/Bottom</b>	12 (305)	2 (51)

The clearance for servicing is 24 inches in front of the water heater.

## MSB Control System and EZConnect

- Each MSB-M board will connect up to 5 water heaters using the MSB-C1 kits.
- Up to 5 MSB-M boards can be connected together with communication cables (MSB-C2 kits) allowing up to 25 water heaters to operate as a single system.
- An MSB system could have an operating range of 15,200 BTU to as great as 5 million BTU. In terms of flow rate, 0.4 gpm to 245 gpm.
- When multiple water heaters are operating, they will attempt to supply equal amounts of hot water.
- The temperature setting for all of the connected water heaters is controlled by the temperature controller connected to the water heater with the Master MSB Board. Temperature controllers connected to the other units will provide maintenance codes for their respective units.
- If a water temperature over 140 degree F is desired, then an MCC-91-2 controller needs to be connected to Master Control Board
- The order in which each water heater operates is occasionally rotated to ensure equal usage among the entire system.
- Detailed installation instructions are provided with each of the kits.

NOTE: For tankless only systems, reference MSB installation instructions to ensure distance between racks do not exceed MSB communication cable length.

\* The Rinnai EZConnect™ is specifically designed for connecting only 2 water heaters.

	Number of Components Required		
No. of water heaters	MSB-M	MSB-C1	MSB-C2
2*	1	NA	NA
3	1	1	NA
4	1	2	NA
5	1	3	NA
6	2	2	1
7	2	3	1
8	2	4	1
9	2	5	1
10	2	6	1
11	3	5	2
12	3	6	2
13	3	7	2
14	3	8	2
15	3	9	2
16	4	8	3
17	4	9	3
18	4	10	3
19	4	11	3
20	4	12	3
21	5	11	4
22	5	12	4
23	5	13	4
24	5	14	4
25	5	15	4

### MSB-M kit includes

- Control board
- Cable A (23 in, 585 mm)
- Cable B (9.8 ft, 3 m)
- Brackets, ties, and screws
- Instructions

### MSB-C1 kit includes

- Cable B (9.8 ft, 3 m)
- Brackets, ties, and screws
- Instructions

### MSB-C2 kit includes

- MSB Cable (13.1 ft, 4 m)
- Terminal connectors
- Instructions