



## Installation Instructions

# Location of Parts for R'newal™ Service Program Kit RTWD and RTUD Chillers



**Important:** *Distribution/use of this document is limited to the Trane sales and service organization in support of the R'newal service program and is not intended for independent third party use or for use apart from compressor service under Trane's R'newal service program.*

### SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.



# Introduction

Read this manual thoroughly before operating or servicing this unit.

## Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

**⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

**NOTICE** Indicates a situation that could result in equipment or property-damage only accidents.

## Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs and HCFCs such as saturated or unsaturated HFCs and HCFCs.

## Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

### ⚠ WARNING

#### Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury. All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in NEC and your local/state/national electrical codes.

### ⚠ WARNING

#### Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/ GHS (Global Harmonized System of Classification and Labeling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

**⚠ WARNING****Follow EHS Policies!**

Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

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## Revision History

Updated for Trane Technologies.



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# Model Number Descriptions

## RTWD/RTUD R'newal Model Number Breakdown

An example of a typical model number is:

|          |          |          |          |          |          |          |          |          |           |           |           |           |           |           |           |           |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>R</b> | <b>R</b> | <b>T</b> | <b>W</b> | <b>D</b> | <b>0</b> | <b>8</b> | <b>0</b> | <b>1</b> | <b>A</b>  | <b>D</b>  | <b>A</b>  | <b>0</b>  | <b>0</b>  | <b>0</b>  | <b>0</b>  | <b>0</b>  |
| <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> |

### Digit 1 — R'newal

R = Trane R'newal

### Digit 2, 3, 4, 5 — Chiller Model

RTWD = Water-Cooled Series R Chiller  
RTUD = Compressor Series R Chiller

### Digit 6, 7, 8 — Unit Tonnage

080 = 80 Unit Tons  
090 = 90 Unit Tons  
100 = 100 Unit Tons  
110 = 110 Unit Tons  
120 = 120 Unit Tons  
130 = 130 Unit Tons  
140 = 140 Unit Tons  
150 = 150 Unit Tons  
160 = 160 Unit Tons  
180 = 180 Unit Tons  
200 = 200 Unit Tons  
220 = 220 Unit Tons  
250 = 250 Unit Tons

### Digit 9 — Compressor Circuit

1 = R'newed Circuit 1  
2 = R'newed Circuit 2  
B = R'newed Both Circuits

### Digit 10 — R'newal Design Sequence

A = Initial R'newal Design Sequence  
B = R'newal Design Sequence

### Digit 11 — Chiller Voltage

A = 200 Volt, 60 Hz, 3-Phase  
B = 230 Volt, 60 Hz, 3-Phase  
D = 380 Volt, 60 Hz, 3-Phase  
F = 460 Volt, 60 Hz, 3-Phase  
G = 575 Volt, 60 Hz, 3-Phase

### Digit 12 — Original Design Sequence

A = "A" Original Design Sequence  
B = "B" Original Design Sequence

### Digit 13 — Not Used (Future Use)

0 = Not Used (Future Use)

### Digit 14 — Not Used (Future Use)

0 = Not Used (Future Use)

### Digit 15 — Not Used (Future Use)

0 = Not Used (Future Use)

### Digit 16 — Not Used (Future Use)

0 = Not Used (Future Use)

### Digit 17 — Design Special

0 = No Special  
1 = Special



# Installation

**Note:** Refer to current unit installation, operation and maintenance literature for maintenance

procedures, rigging instructions, and additional information.

**Table 1. Complete contents of RTWD/RTUD R'newal kit 022102530100**

| Part            | Quantity | Description                                                                                                               |
|-----------------|----------|---------------------------------------------------------------------------------------------------------------------------|
| 018503790100    | 1        | LABEL; PRINTED NAMEPLATE W/TRANE LOGO                                                                                     |
| ADP00372        | 2        | ADAPTER; 0.63 OD TUBE FOR OIL LINE CONNECTION                                                                             |
| ADP00909        | 2        | ADAPTER; 0.38 OD TUBE X 7/16-20 SAE, O-RING SEAL HEX                                                                      |
| COL03780        | 4        | COIL; HOLDING, 120V, 50/60 HZ (AMG 120/50-60)                                                                             |
| COL04723        | 4        | COIL; SOLENOID VALVE, 120V/60 & 110V/50 HZ                                                                                |
| COL11934        | 2        | COIL; AMC 120V SOLENOID 36" LEAD                                                                                          |
| CPL00934        | 2        | COUPLING; (INCLUDES ORING & TEFLON SEAL)                                                                                  |
| FTG00130        | 1 carton | FITTING; ACCESS, HALF UNION TYPE, 1/4" MPT OR 5/16" OD SOLDER, 6 PER CARD                                                 |
| GKT02824        | 4        | GASKET-ADAPTER,SUCTION SERVICE VALVE, NON-ASBESTOS R-123 COMPATIBLE, 0.06 THK X 2.84 OD X 2.28 ID. (PIPE SIDE)            |
| GKT03659        | 2        | GASKET; 0.031 X 3.22 X 2.53, CHLOROPRENE (NON-ASBESTOS) W/ANTI-STICK COATING ONE SIDE                                     |
| GKT03660        | 6        | GASKET; 0.031 X 4.16 X 3.38, CHLOROPRENE (NON-ASBESTOS) W/ANTI STICK COATING ONE SIDE                                     |
| HTR02047        | 2        | HEATER; ELECTRIC, 150W, 120V                                                                                              |
| HTR04015        | 2        | HEATER; SUBM.OIL SEP 125W                                                                                                 |
| KIT07614        | 2        | KIT; LIQUID LINE FILTER, (R134A) INCLUDES TWO FILTER SHELL GASKETS (THROW AWAY THE INCORRECT GASKET) AND ONE FILTER CORE. |
| PART-SVN216*-EN | 1        | LITERATURE; RTWD/RTUD R'NEWAL                                                                                             |
| RNG01397        | 2        | O-RING; 0.364 ID X 0.070 RD                                                                                               |
| RNG01412        | 2        | O-RING; 4.609 ID X 0.139 RD                                                                                               |
| RNG01414        | 2        | O-RING; 5.109 ID X 0.139 RD                                                                                               |
| RNG01415        | 2        | O-RING; 6.234 ID X 0.139 RD                                                                                               |
| RNG01427        | 1        | O-RING; 17.455 ID X 0.275 RD                                                                                              |
| RNG01428        | 2        | O-RING; 19.455 ID X 0.275 RD                                                                                              |
| RNG01441        | 2        | O-RING; 1.171 ID X 0.116 RD                                                                                               |
| RNG01443        | 2        | O-RING; 15.955 ID X 0.275 RD                                                                                              |
| RNG01553        | 2        | O-RING; 0.755 ID X 0.097 RD                                                                                               |
| RNG01697        | 2        | O-RING; 0.351ID X 0.072 RD                                                                                                |
| RNG01764        | 2        | RING-O; 0.924 ID X 0.116 RD                                                                                               |
| RNG01838        | 2        | O-RING; UNIFORM SIZE #248, 4.734 ID x 0.139 RD                                                                            |
| RNG01856        | 2        | O-RING; NEOPRENE, 15.475 ID X 0.275 RD                                                                                    |
| RNG01921        | 2        | O-RING; 12.975 ID X 0.275 RD, NEOPRENE                                                                                    |
| RNG01922        | 3        | O-RING; 14.975 ID X 0.275 RD, NEOPRENE                                                                                    |
| RNG01923        | 2        | O-RING; 1.475 ID X 0.118 RD, NEOPRENE                                                                                     |
| RNG01938        | 3        | RING; O-RING - NEOPRENE, 17.955 ID X 0.275 RD                                                                             |
| RNG01939        | 2        | RING; NEOPRENE O-RING, 5.484 ID X 0.139 RD                                                                                |
| RNG01942        | 2        | RING; O-RING NITRILE, 1.359 ID X 0.139 RD, (USE W/R-134A & 'POE' OILS) UNIFORM SIZE #220                                  |
| SWT02377        | 2        | CONTRL; HIGH PRESS CUTOUT                                                                                                 |
| SWT03177        | 2        | SWITCH; HIGH PRESSURE CUTOUT                                                                                              |
| —               | 1        | LABEL; NAMEPLATE, SERIES R R'NEWAL (BRASS)                                                                                |

**Note:** This kit (022102530100) includes parts for a variety of unit sizes; some included parts may not be required for your specific unit.

**Table 2. RTWD general component location**

| <b>Condenser (see Figure 1, p. 10)</b>  |                 |                                   |                 |
|-----------------------------------------|-----------------|-----------------------------------|-----------------|
| <b>Graphic Callout</b>                  | <b>Part #</b>   | <b>Unit</b>                       | <b>Quantity</b> |
| 1                                       | RNG01441        | All unit sizes                    | 2               |
| 2                                       | RNG01856 SUPPLY | 080, 090, 100, 110, 120, 130, 140 | 1               |
|                                         | RNG01938 SUPPLY | 150, 160, 180, 200                |                 |
|                                         | RNG01428 SUPPLY | 220, 250                          |                 |
| 3                                       | RNG01922 RETURN | 080, 090                          | 1               |
|                                         | RNG01856 RETURN | 100, 110, 120, 130, 140           |                 |
|                                         | RNG01938 RETURN | 150, 160, 180, 200                |                 |
|                                         | RNG01428 RETURN | 220, 250                          |                 |
| 4                                       | RNG01923        | All unit sizes                    | 2               |
| <b>Evaporator (see Figure 2, p. 10)</b> |                 |                                   |                 |
| <b>Graphic Callout</b>                  | <b>Part #</b>   | <b>Unit</b>                       | <b>Quantity</b> |
| 5                                       | RNG01922 SUPPLY | 080, 100, 110, 120, 130, 140, 150 | 1               |
|                                         | RNG01921 SUPPLY | 090                               |                 |
|                                         | RNG01427 SUPPLY | 160, 220, 250                     |                 |
|                                         | RNG01443 SUPPLY | 180, 200                          |                 |
| 5                                       | RNG01922 RETURN | 080, 100, 110, 120, 130, 140, 150 | 1               |
|                                         | RNG01921 RETURN | 090                               |                 |
|                                         | RNG01938 RETURN | 160, 220, 250                     |                 |
|                                         | RNG01443 RETURN | 180, 200                          |                 |
| 6                                       | RNG01764        | All unit sizes                    | 2               |
| 7                                       | ADP00372        | All unit sizes                    | 2               |



## Installation

**Table 2. RTWD general component location (continued)**

| Unit Front (see Figure 3, p. 11) |          |                                                       |          |
|----------------------------------|----------|-------------------------------------------------------|----------|
| Graphic Callout                  | Part #   | Unit                                                  | Quantity |
| 8                                | RNG01838 | 080, 090, 100                                         | 1        |
|                                  | RNG01414 | 110, 120, 130, 140, 150, 200, 220, 250                |          |
|                                  | RNG01939 | 160, 180                                              |          |
| 9                                | RNG01838 | 080, 090                                              | 1        |
|                                  | RNG01414 | 100, 110, 120, 130, 140, 150                          |          |
|                                  | RNG01939 | 160, 180, 220                                         |          |
|                                  | RNG01415 | 200, 250                                              |          |
| 10                               | COL04723 | All unit sizes                                        | 2        |
| 11                               | COL11934 | All unit sizes                                        | 1        |
| 12                               | SWT03177 | All unit sizes                                        | 1        |
| 13                               | HTR02047 | All unit sizes                                        | 1        |
| 14                               | COL04723 | All unit sizes                                        | 2        |
| 15                               | COL11934 | All unit sizes                                        | 1        |
| 16                               | SWT03177 | All unit sizes                                        | 1        |
| 17                               | HTR02047 | All unit sizes                                        | 1        |
| 18                               | GKT02824 | 080, 090                                              | 1        |
|                                  | GKT03660 | 100, 110, 120, 130, 140, 150, 160, 180, 200, 220, 250 |          |
| 19                               | GKT02824 | 080, 090, 100, 160, 180, 200, 220, 250                | 1        |
|                                  | GKT03660 | 110, 120, 130, 140, 150                               |          |
| 20                               | GKT02824 | 080, 090                                              | 1        |
|                                  | GKT03660 | 100, 110, 120, 130, 140, 150, 160, 180, 200, 220, 250 |          |
| 21                               | GKT02824 | 080, 090, 100, 160, 180, 200, 220, 250                | 1        |
|                                  | GKT03660 | 110, 120, 130, 140, 150                               |          |
| 22                               | HTR04015 | All unit sizes                                        | 2        |
| 23                               | GKT03659 | 080, 090                                              | 1        |
|                                  | GKT03660 | 100, 110, 120, 130, 140, 150, 160, 180, 200, 220, 250 |          |
| 24                               | GKT03659 | 080, 090, 100                                         | 1        |
|                                  | GKT03660 | 110, 120, 130, 140, 150, 160, 180, 200, 220, 250      |          |
| Unit Back (see Figure 4, p. 12)  |          |                                                       |          |
| Graphic Callout                  | Part #   | Unit                                                  | Quantity |
| 25                               | KIT07614 | All unit sizes                                        | 2        |
| 26                               | FTG00130 | All unit sizes                                        | 1        |
| 27                               | COL03780 | All unit sizes                                        | 2        |
| 28                               | COL03780 | All unit sizes                                        | 2        |
| 29                               | ADP00909 | All unit sizes                                        | 2        |
| 30                               | CPL00934 | All unit sizes                                        | 2        |

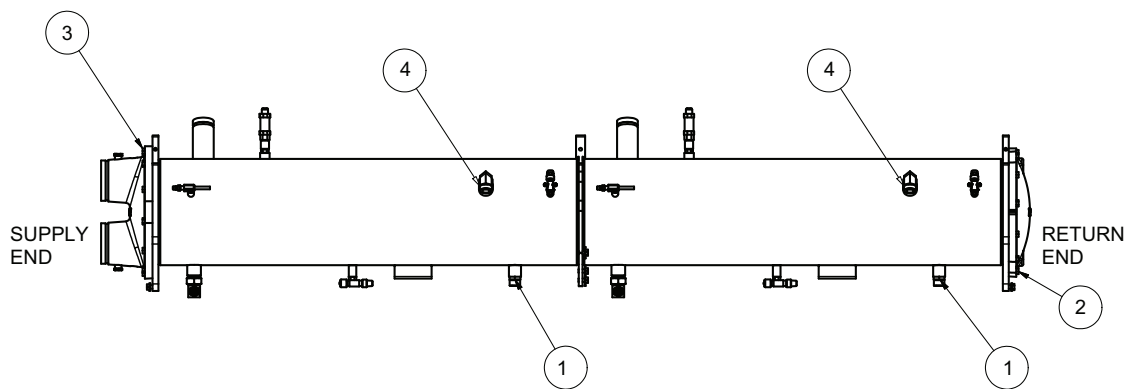
**Table 3. RTUD general component location**

| <b>Evaporator (see Figure 2, p. 10)</b> |                 |                                                       |                 |
|-----------------------------------------|-----------------|-------------------------------------------------------|-----------------|
| <b>Graphic Callout</b>                  | <b>Part #</b>   | <b>Unit</b>                                           | <b>Quantity</b> |
| 5                                       | RNG01921 SUPPLY | 080, 090, 100                                         | 1               |
|                                         | RNG01922 SUPPLY | 110, 120, 130, 140, 150                               |                 |
|                                         | RNG01443 SUPPLY | 160, 180, 200, 220, 250                               |                 |
| 5                                       | RNG01921 RETURN | 080, 090, 100                                         | 1               |
|                                         | RNG01922 RETURN | 110, 120, 130, 140, 150                               |                 |
|                                         | RNG01443 RETURN | 160, 180, 200, 220, 250                               |                 |
| 6                                       | RNG01764        | All unit sizes                                        | 2               |
| 7                                       | ADP00372        | All unit sizes                                        | 2               |
| <b>Unit Front (see Figure 3, p. 11)</b> |                 |                                                       |                 |
| <b>Graphic Callout</b>                  | <b>Part #</b>   | <b>Unit</b>                                           | <b>Quantity</b> |
| 8                                       | RNG01412        | 080, 090                                              | 1               |
|                                         | RNG01414        | 100, 110, 120, 130, 140, 150, 160                     |                 |
|                                         | RNG01939        | 180, 200                                              |                 |
|                                         | RNG01415        | 220, 250                                              |                 |
| 9                                       | RNG01412        | 080, 090                                              | 1               |
|                                         | RNG01414        | 100, 110, 120, 130, 140, 150, 160, 180                |                 |
|                                         | RNG01939        | 200, 220                                              |                 |
|                                         | RNG01415        | 250                                                   |                 |
| 10                                      | COL04723        | All unit sizes                                        | 2               |
| 11                                      | COL11934        | All unit sizes                                        | 1               |
| 12                                      | SWT02377        | All unit sizes                                        | 1               |
| 13                                      | HTR02047        | All unit sizes                                        | 1               |
| 14                                      | COL04723        | All unit sizes                                        | 2               |
| 15                                      | COL11934        | All unit sizes                                        | 1               |
| 16                                      | SWT02377        | All unit sizes                                        | 1               |
| 17                                      | HTR02047        | All unit sizes                                        | 1               |
| 18                                      | GKT02824        | 080, 090                                              | 1               |
|                                         | GKT03660        | 100, 110, 120, 130, 140, 150, 160, 180, 200, 220, 250 |                 |
| 19                                      | GKT02824        | 080, 090, 100                                         | 1               |
|                                         | GKT03660        | 110, 120, 130, 140, 150, 160, 180, 200, 220, 250      |                 |
| 20                                      | GKT02824        | 080, 090                                              | 1               |
|                                         | GKT03660        | 100, 110, 120, 130, 140, 150, 160, 180, 200, 220, 250 |                 |
| 21                                      | GKT02824        | 080, 090, 100                                         | 1               |
|                                         | GKT03660        | 110, 120, 130, 140, 150, 160, 180, 200, 220, 250      |                 |
| 22                                      | HTR04015        | All unit sizes                                        | 2               |
| 23                                      | GKT03659        | 080, 090                                              | 1               |
|                                         | GKT03660        | 100, 110, 120, 130, 140, 150, 160, 180, 200, 220, 250 |                 |
| 24                                      | GKT03659        | 080, 090, 100                                         | 1               |
|                                         | GKT03660        | 110, 120, 130, 140, 150, 160, 180, 200, 220, 250      |                 |

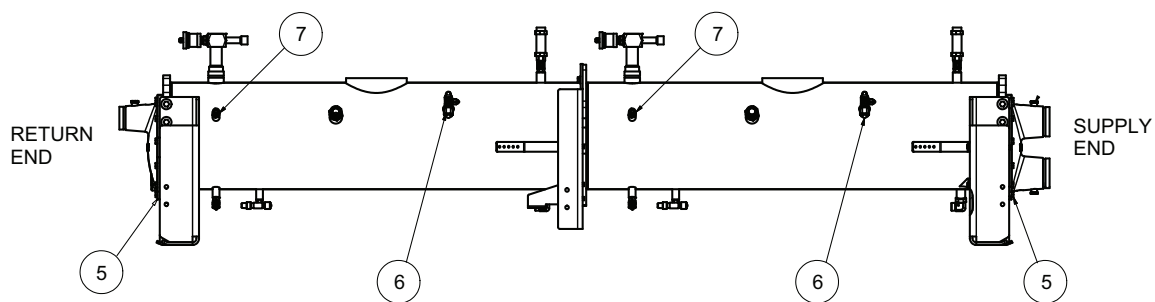
**Table 3. RTUD general component location (continued)**

| <i>Unit Back (see Figure 4, p. 12)</i> |          |                |          |
|----------------------------------------|----------|----------------|----------|
| Graphic Callout                        | Part #   | Unit           | Quantity |
| 25                                     | KIT07614 | All unit sizes | 2        |
| 26                                     | FTG00130 | All unit sizes | 1        |
| 27                                     | COL03780 | All unit sizes | 2        |
| 28                                     | COL03780 | All unit sizes | 2        |
| 29                                     | ADP00909 | All unit sizes | 2        |
| 30                                     | CPL00934 | All unit sizes | 2        |

**Figure 1. Condenser (RTWD only)**



**Figure 2. Evaporator (RTWD shown; RTUD is similar)**



**Figure 3. Unit front (RTWD shown; RTUD is similar)**

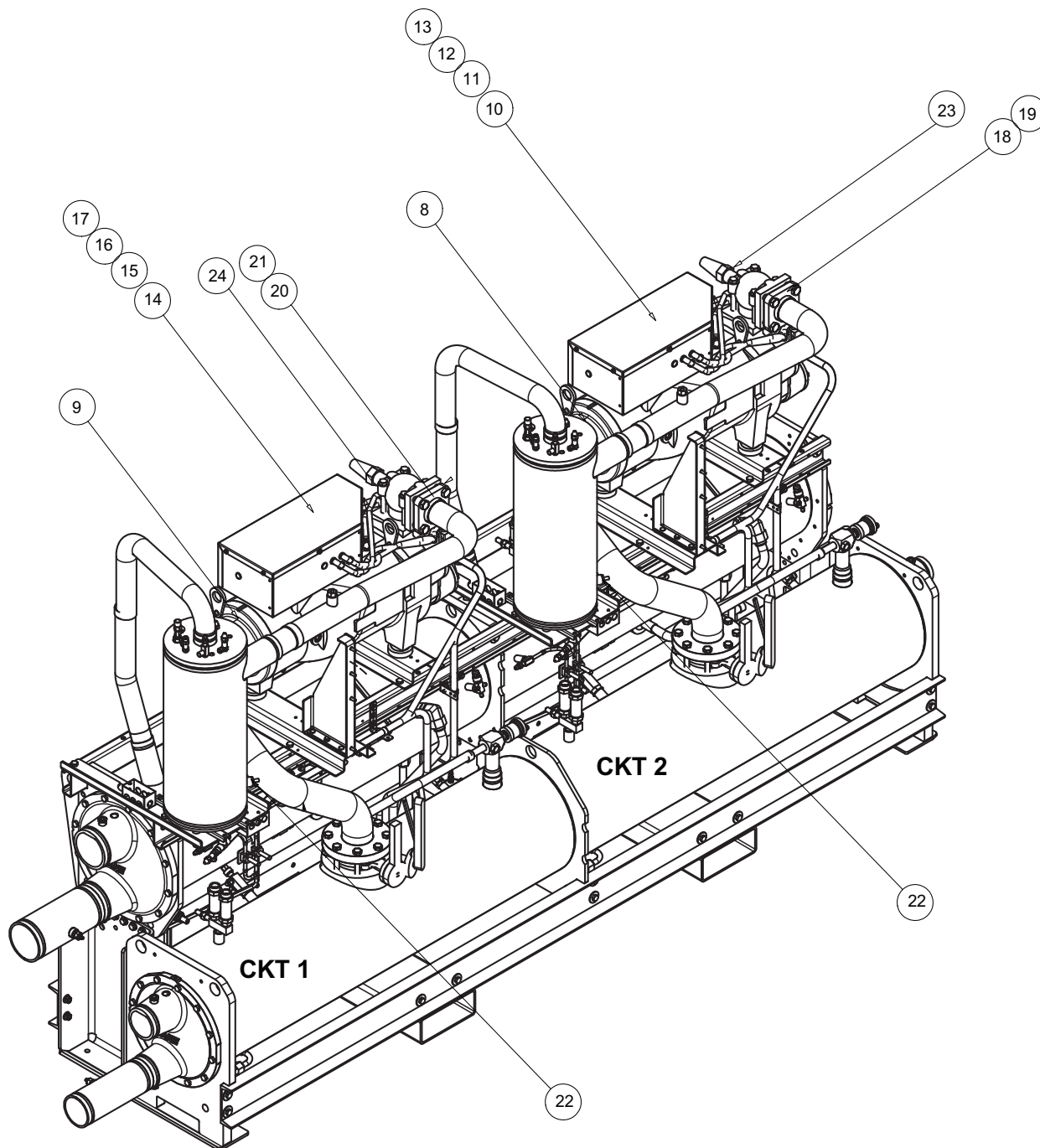
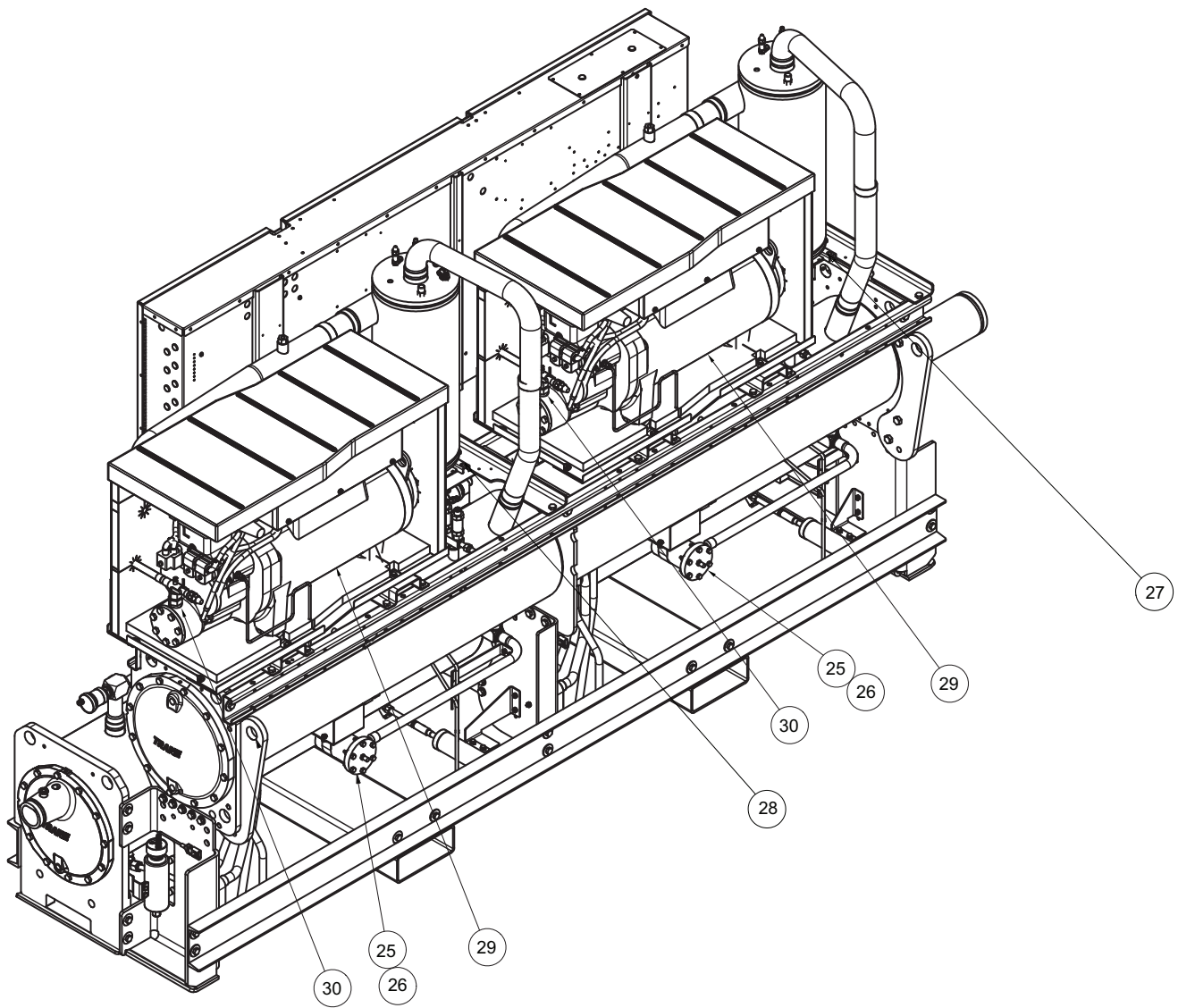


Figure 4. Unit back (RTWD shown; RTUD is similar)







## Notes

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