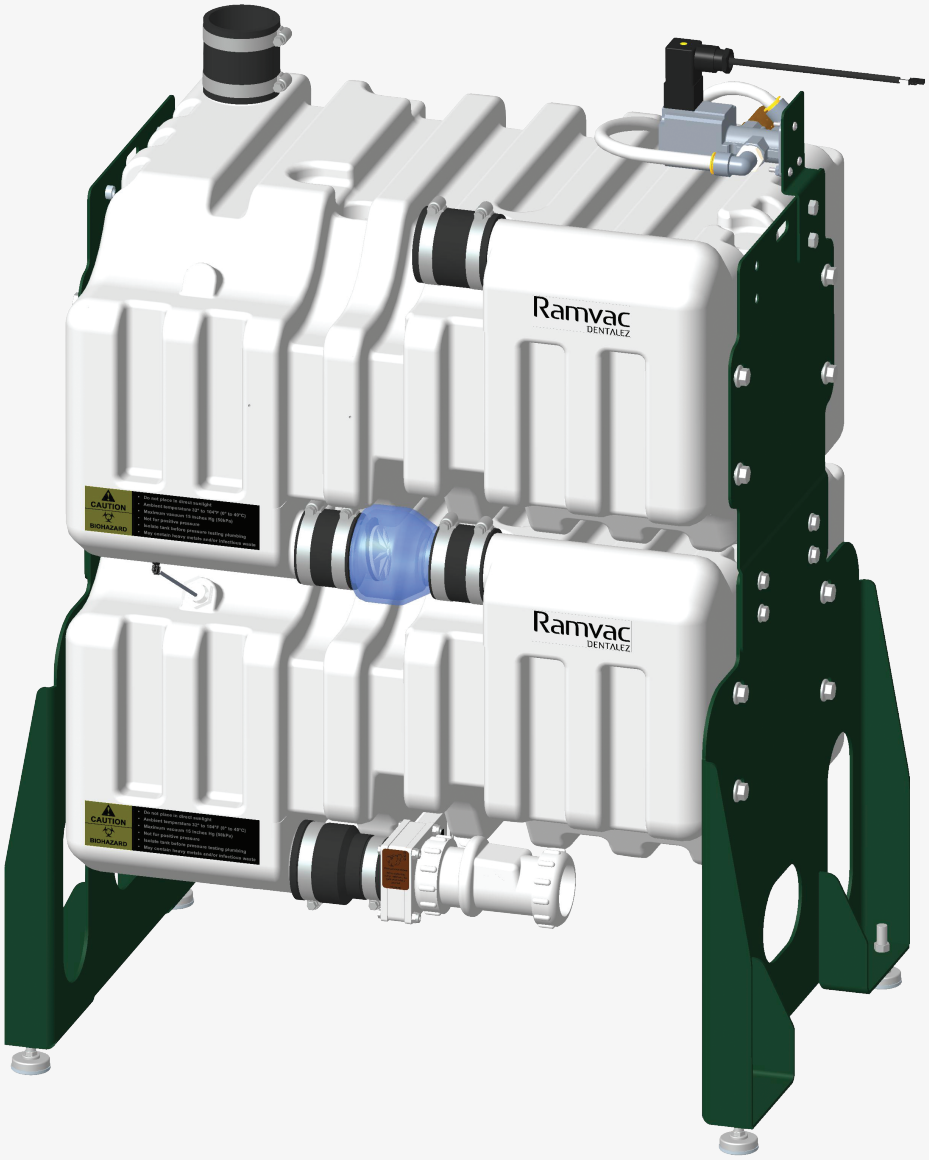
VACUUM TANK

Aeras

Ramvac

INSTALLATION MANUAL



DENTALEZ

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Aeras Ramvac

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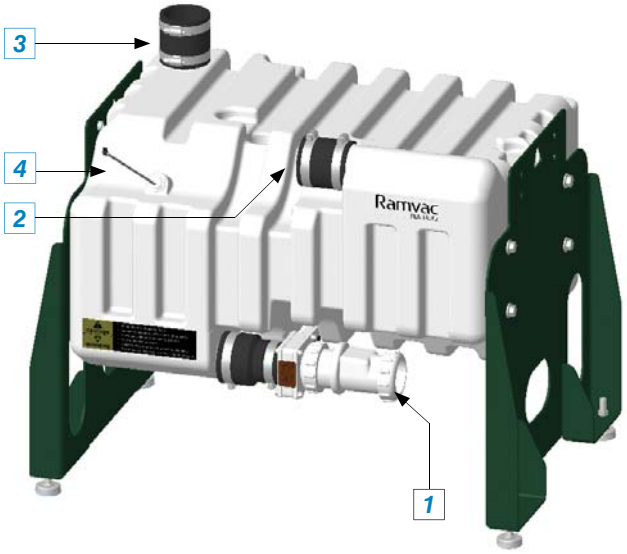
NOTES:

Aeras Ramvac

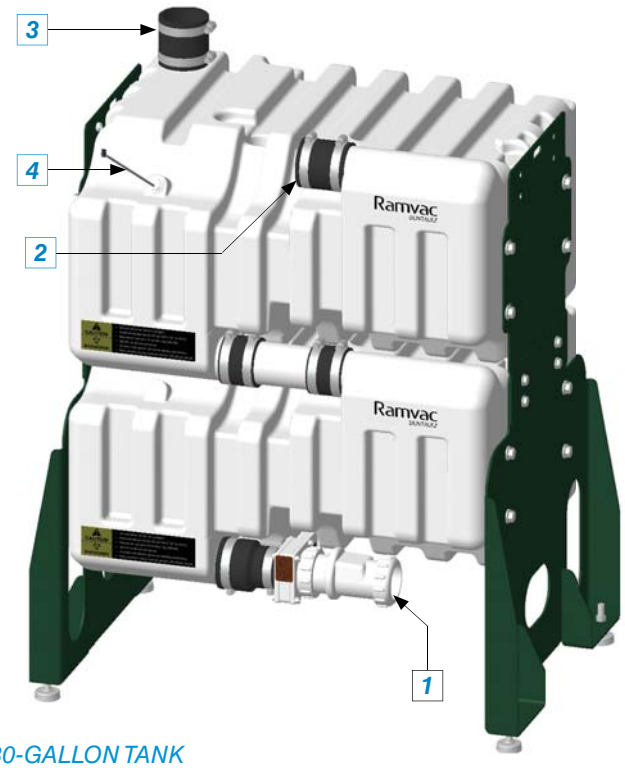
TANKS

	15-GALLON TANK	30-GALLON TANK
Typical No. of Treatment Rooms†	1-6	7-12
Nominal Width *(in)*	29"	29"
Nominal Depth *(in)*	19"	19"
Nominal Height *(in)*	24"	36"
Floor to Drain Centerline *(in)*	8"	8"

†This assumes one chair per person. For bays, let "Rooms" equal chairs.



15-GALLON TANK



30-GALLON TANK

1 *Connects to waste piping (see SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS)*

2 *Connects to operatories (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

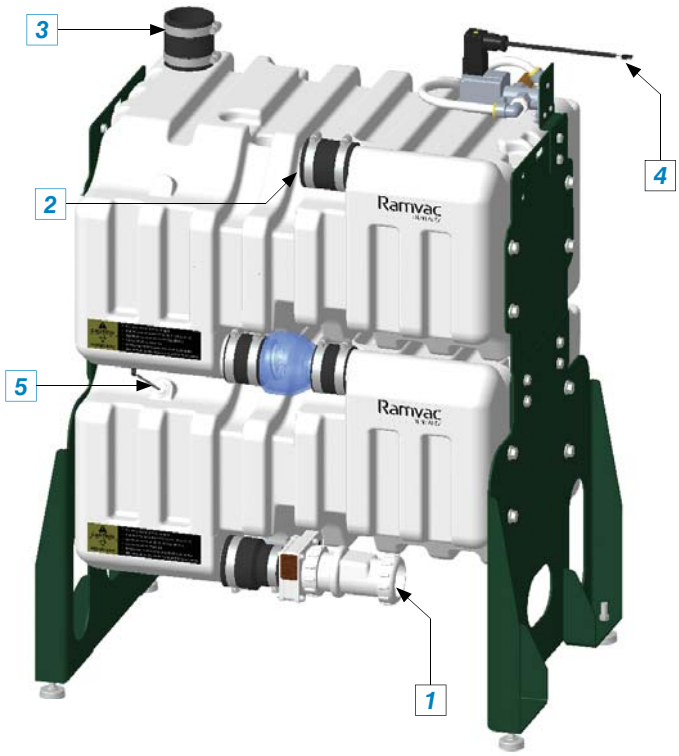
3 *Connects to vacuum unit (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

4 *Connects to Aeras control TANK FLOAT (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

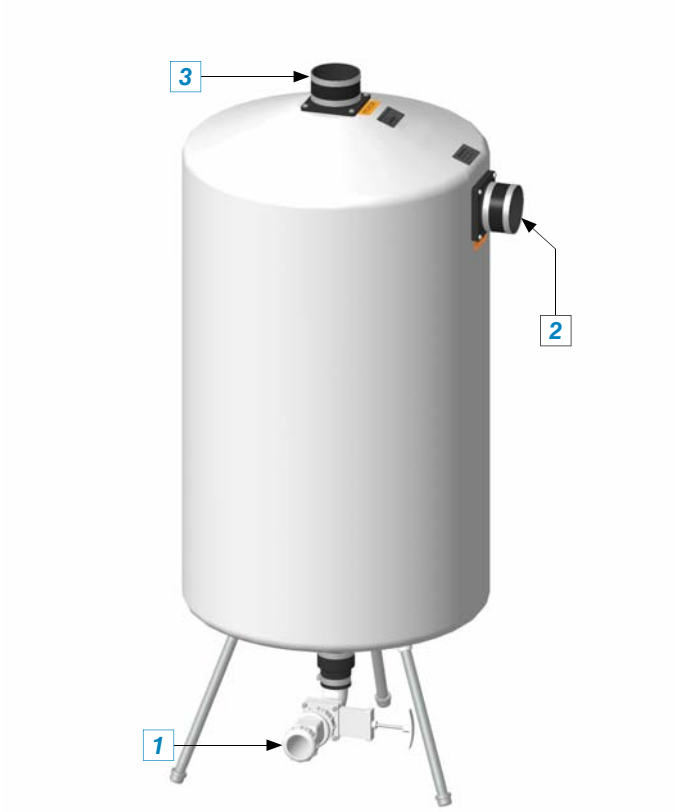
TANKS (CONTINUED)

	INFINITANK	50-GALLON CYLINDRICAL TANK
Typical No. of Treatment Rooms†	1-20	13-20
Nominal Width *(in)*	29"	26"
Nominal Depth *(in)*	21"	26"
Nominal Height *(in)*	38"	62"
Floor to Drain Centerline *(in)*	8"	5"

†This assumes one chair per person. For bays, let "Rooms" equal chairs.



INFINITANK



50-GALLON CYLINDRICAL TANK

1 *Connects to waste piping (see SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS)*

2 *Connects to operatories* (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

3 *Connects to vacuum unit** (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

4 *Connects to Aeras control INFINITANK SOLENOID (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

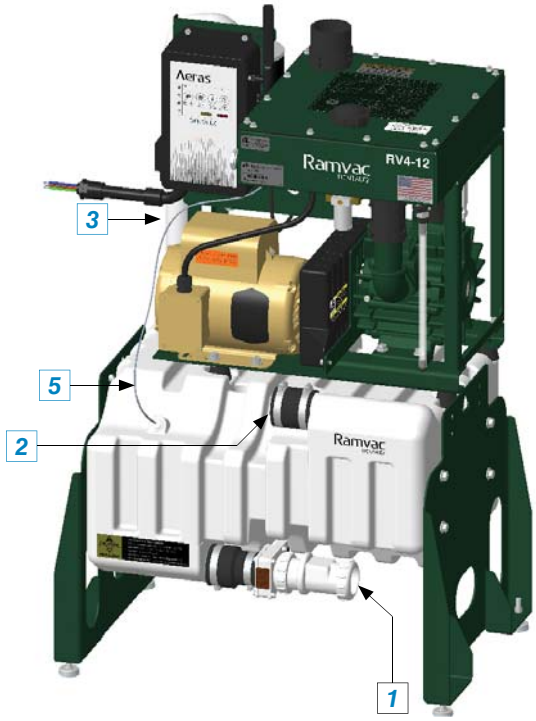
5 *Connects to Aeras control TANK FLOAT (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

**Tank inlet for 50-gallon tank is 3".*
***Tank outlet for 50-gallon tank is 3".*

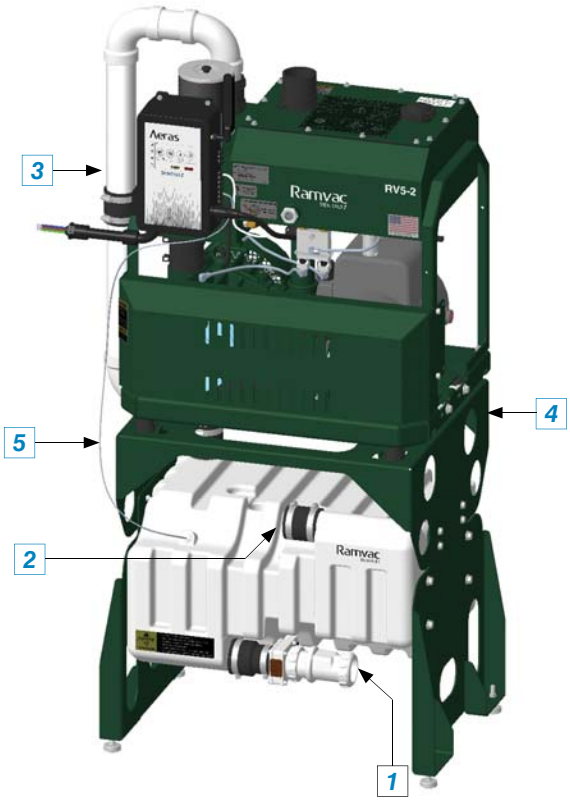
TANKS/VACUUMS STACKED

	15-GALLON TANK WITH RV4-12	15-GALLON TANK WITH RV5-2, RV7-2 OR RV10-2
Typical No. of Treatment Rooms†	1-6	1-6
Nominal Width *(in)*	29"	33"
Nominal Depth *(in)*	19"	21"/22" (RV10-2)
Nominal Height *(in)*	48"	59"
Floor to Drain Centerline *(in)*	8"	8"

†This assumes one chair per person. For bays, let "Rooms" equal chairs.



15-GALLON TANK WITH RV4-12



15-GALLON TANK WITH RV5-2, RV7-2 OR RV10-2

1 *Connects to waste piping (see SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS)*

2 *Connects to operatories (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

3 *Connects to vacuum unit (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

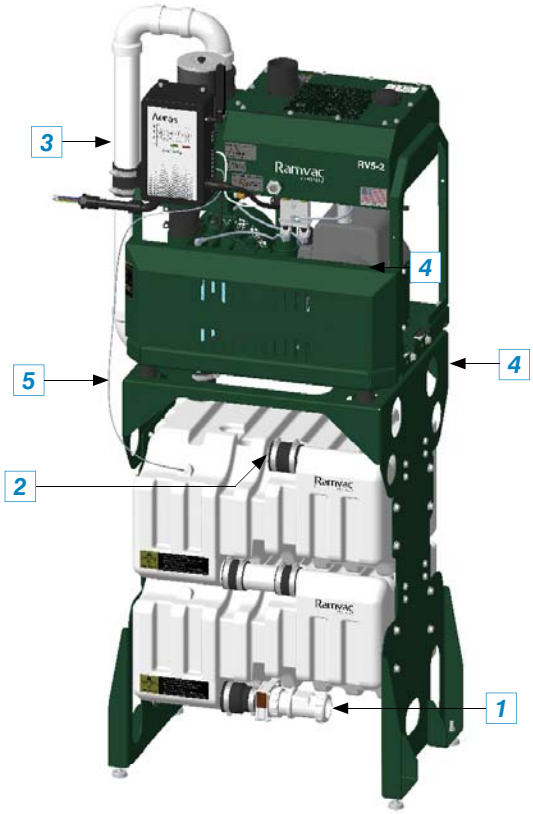
4 *Platform (required)*

5 *Connects to Aeras control TANK FLOAT (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

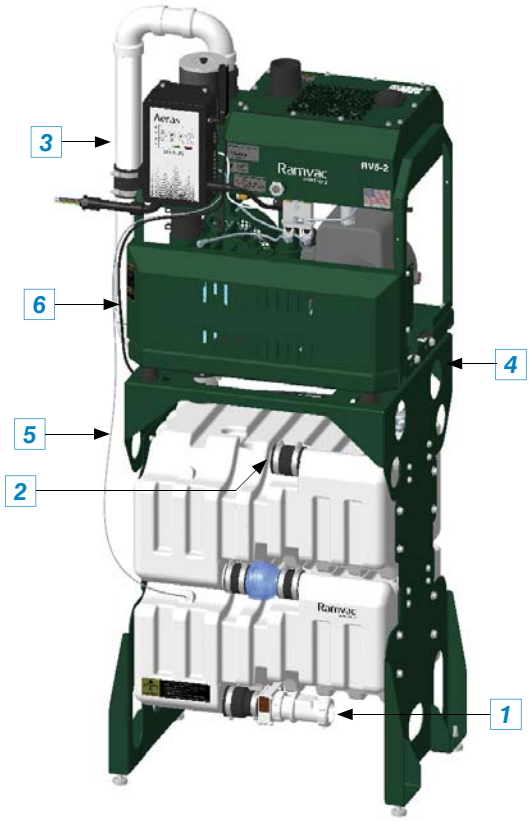
TANKS/VACUUMS STACKED (CONTINUED)

	30-GALLON TANK WITH RV5-2, RV7-2, OR RV10-2	INFINITANK WITH RV5-2, RV7-2, OR RV10-2
Typical No. of Treatment Rooms†	7-12	1-20
Nominal Width *(in)*	33"	33"
Nominal Depth *(in)*	21"/ 22" (RV10-2)	21"/22" (RV10-2)
Nominal Height *(in)*	71"	71"
Floor to Drain Centerline *(in)*	8"	8"

†This assumes one chair per person. For bays, let "Rooms" equal chairs.



30-GALLON TANK WITH RV5-2, RV7-2 OR RV10-2



INFINITANK WITH RV5-2, RV7-2 OR RV10-2

1 *Connects to waste piping (see SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS)*

2 *Connects to operatories (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

3 *Connects to vacuum unit (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

4 *Platform (required)*

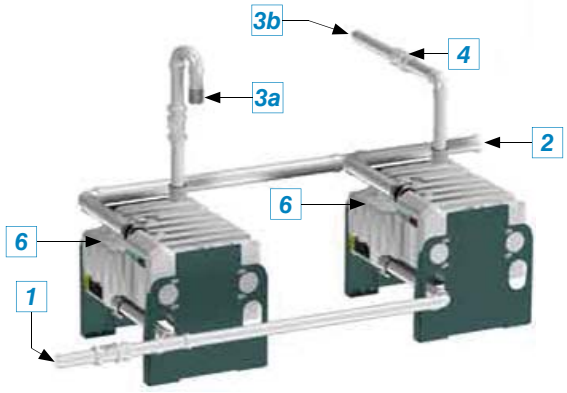
5 *Connects to Aeras control TANK FLOAT (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

6 *Connects to Aeras control INFINITANK SOLENOID (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

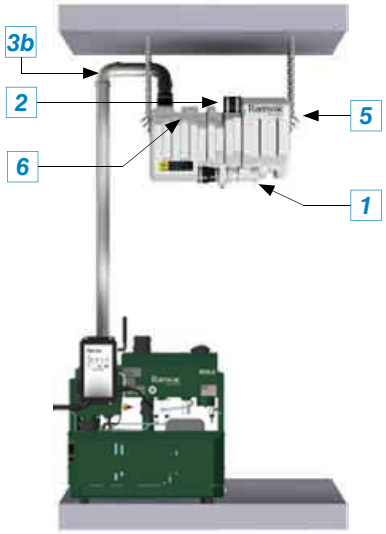
Aeras Ramvac

AERAS 15-GALLON/30-GALLON TANK SETUP

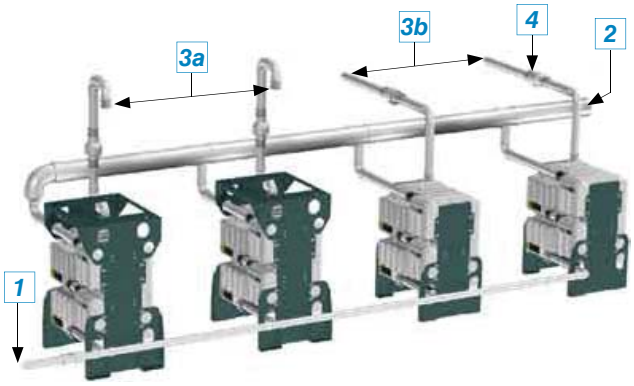
DUAL TANK



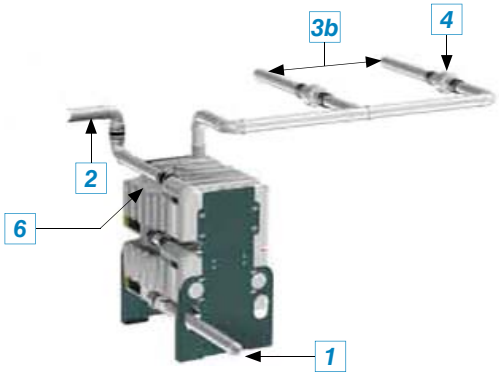
SUSPENDED TANK



MULTIPLE TANK



MULTIPLE VACUUM



1 *Connects to waste piping* (see *SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS*)

2 *Connects to operatories (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

3a *Connects to vacuum unit mounted tank (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

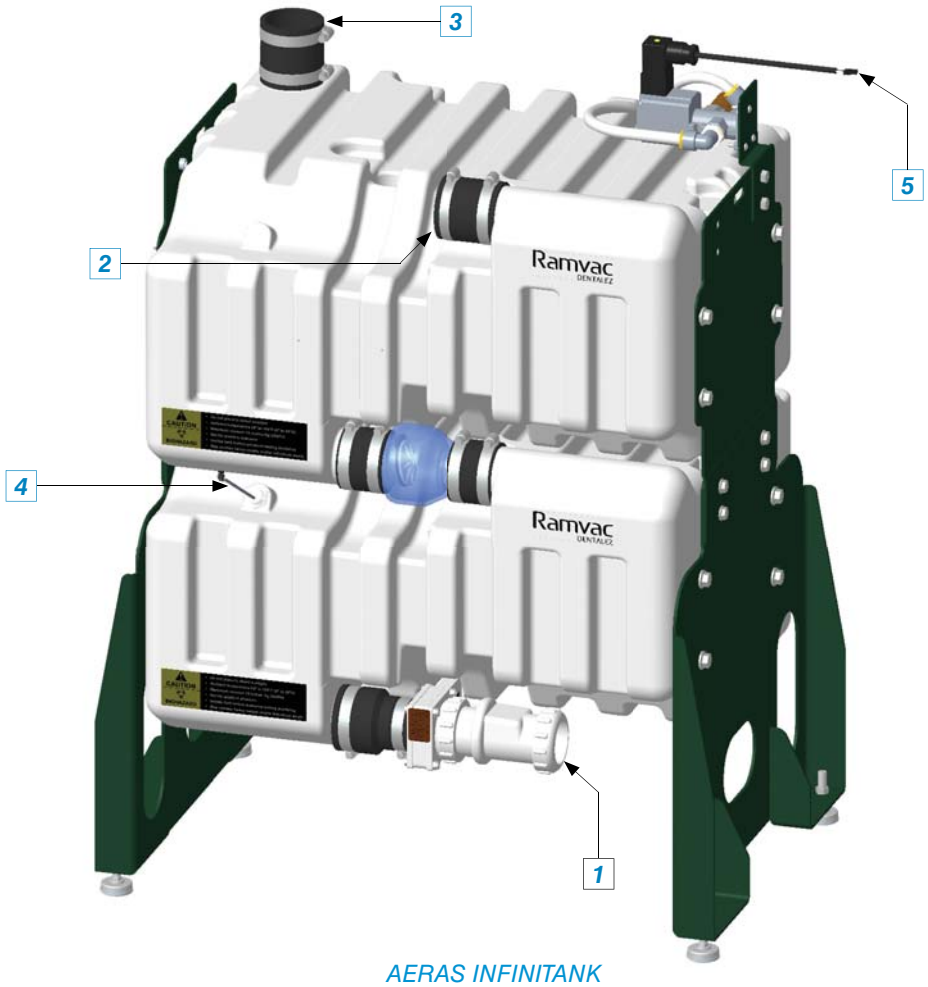
3b *Connects to vacuum unit located remotely (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

4 *Vacuum check valve* (see *SECTION IV - PLUMBING - VACUUM CHECK VALVE INSTALLATION*)

5 *Suspension Hooks - Remove tank legs. Use leg bolts to attach and suspend tank from ceiling with chain or cable (customer supplied).*

6 *Connects to Aeras control TANK FLOAT (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

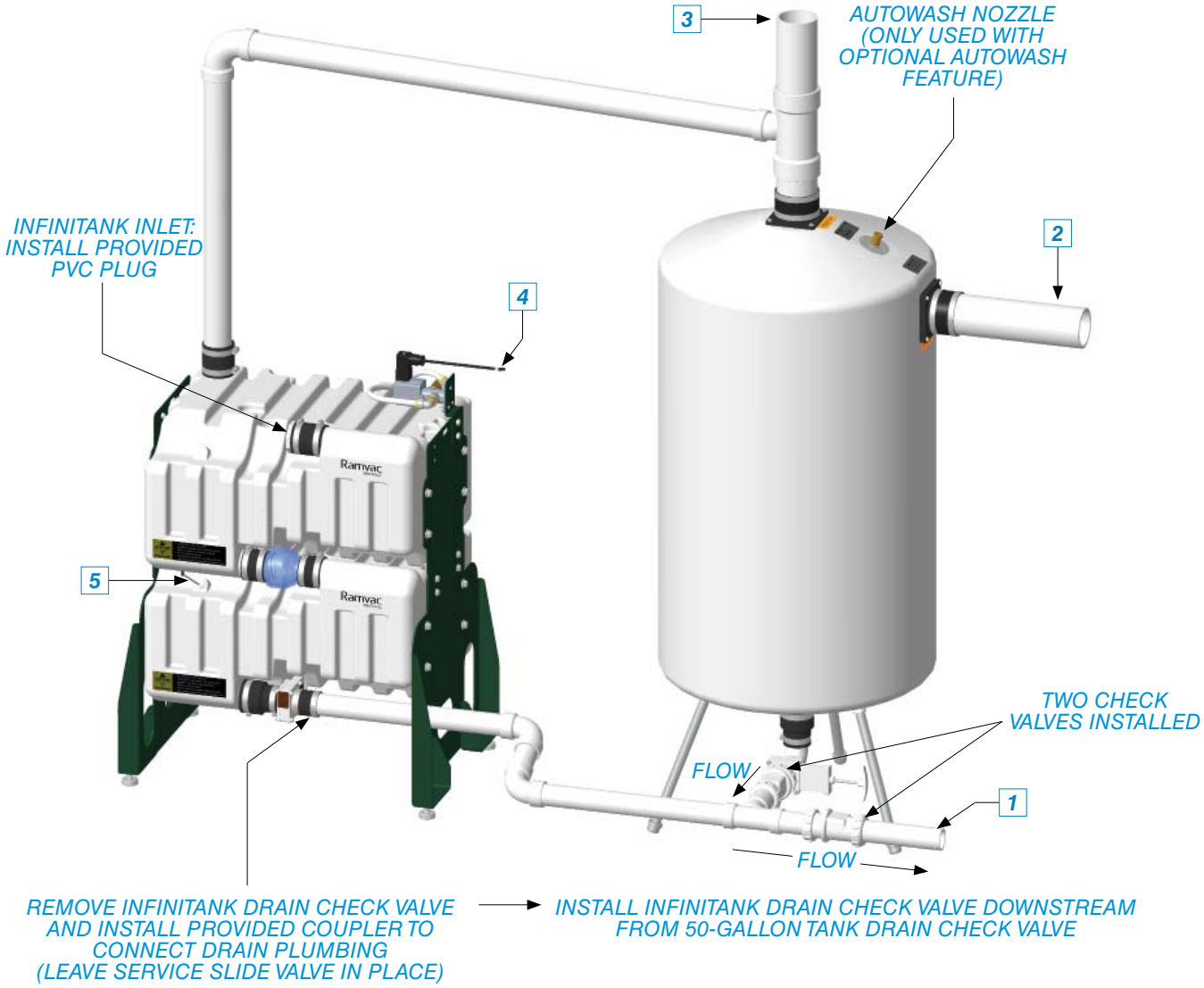
AERAS INFINITANK SETUP



AERAS INFINITANK

1. Connects to waste piping (see SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS)
2. Connects to operatories (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)
3. Connects to vacuum unit (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)
4. Connects to Aeras control TANK FLOAT (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)
5. Connects to Aeras control INFINITANK SOLENOID (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)

AERAS INFINITANK HIGH-FLOW SETUP



NOTE: *Shipped with a parts bag labeled "Parts for Optional High-flow InfiniTank" containing a coupler and a plug. See below for proper assembly.*

1. *Connects to waste piping (see SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS)*
2. *Connects to operatories* (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*
3. *Connects to vacuum unit** (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*
4. *Connects to Aeras control INFINITANK SOLENOID (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*
5. *Connects to Aeras control TANK FLOAT (opt.) connector (see SECTION III - AERAS CONTROL - CONNECTIONS)*

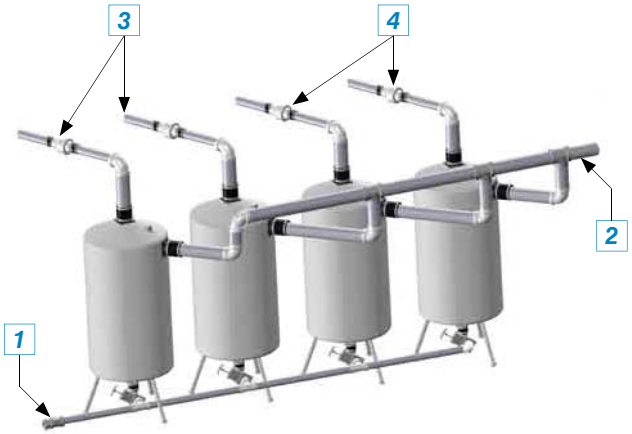
**Tank inlet for 50-gallon tank is 3".*
***Tank outlet for 50-gallon tank is 3". Tank outlet for InfiniTank is 2".*
a. *Connect the two tank outlets together as shown.*
b. *See SECTION II - INSTALLATION - CYLINDRICAL TANK SETUP - MULTIPLE VACUUM for connection.*

CYLINDRICAL TANK SETUP

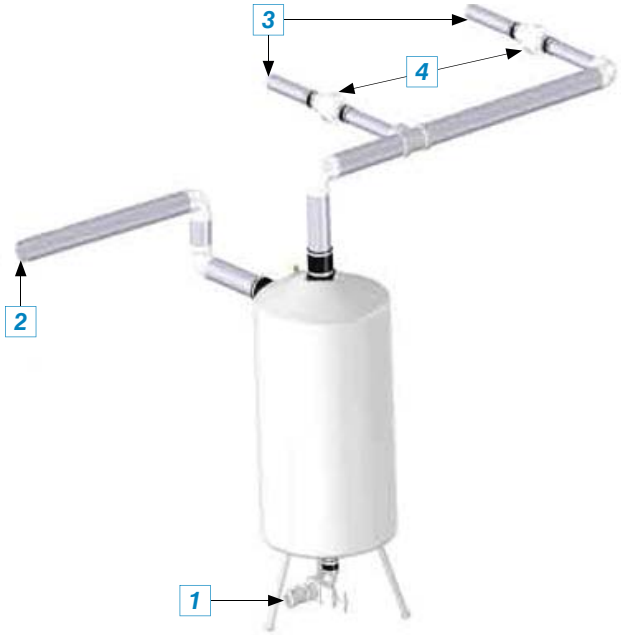
50-GALLON TANK



MULTIPLE TANK



MULTIPLE VACUUM



1 *Connects to waste piping* (see *SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS*)

2 *Connects to operatories* (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

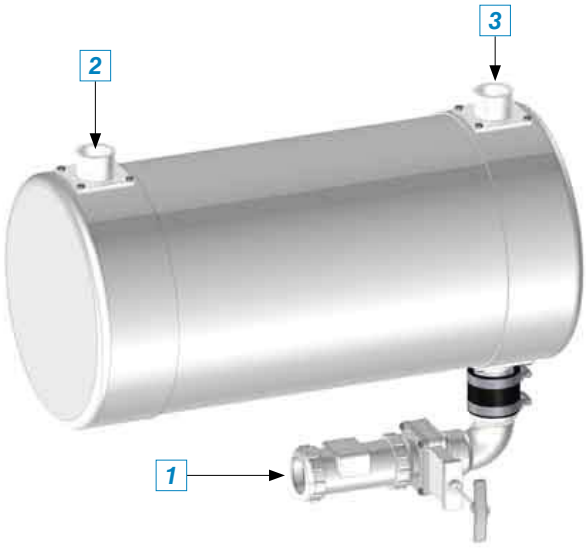
3 *Connects to vacuum unit** (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

4 *Vacuum check valve (see SECTION IV - PLUMBING - VACUUM CHECK VALVE INSTALLATION)*

**Tank inlet for 50-gallon tank is 3".*
***Tank outlet for 50-gallon tank is 3".*

CYLINDRICAL TANK SETUP (CONTINUED)

CUSTOM HORIZONTAL TANK



1 *Connects to waste piping (see SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS)*

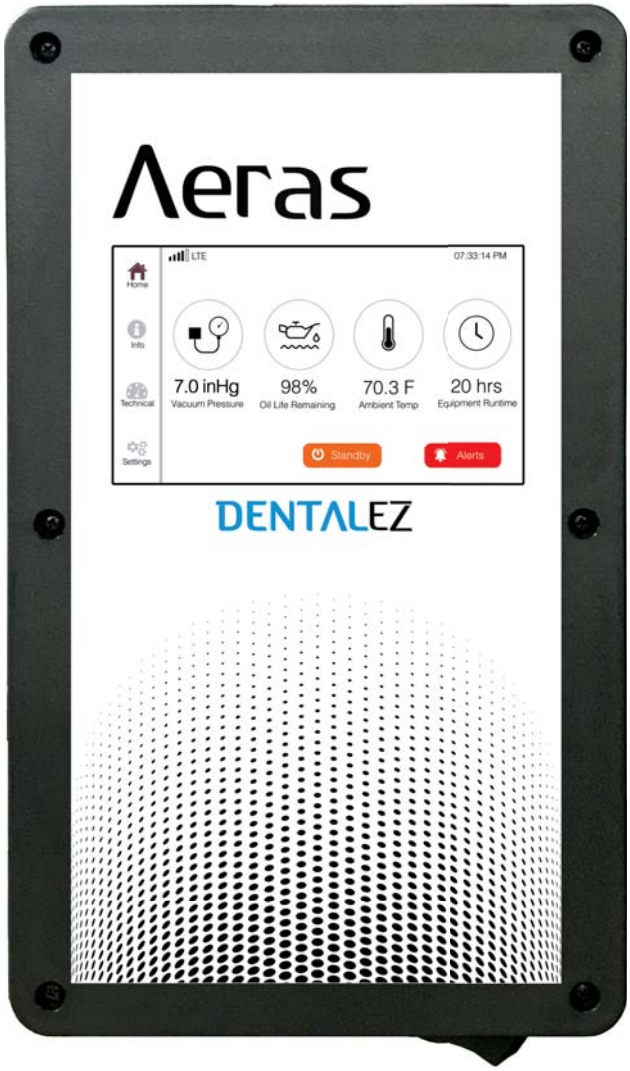
2 *Connects to operatories* (see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

3 *Connects to vacuum unit** (see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

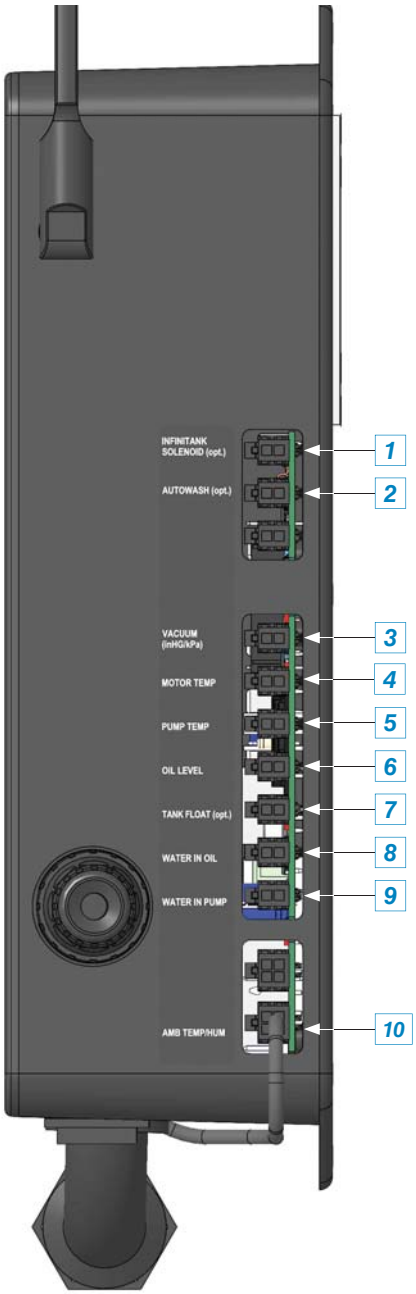
- *Tank locations (2 and 3) are reversible.*
- *Mounting hardware for custom tank is customer supplied. Tank support requirements: 1 gallon of liquid = 8.33 lbs. (e.g. 50-gallon tank × 8.33 lbs. = 416.5 lbs.)*

CONNECTIONS

AERAS CONTROL BOX (FRONT VIEW)



AERAS CONTROL BOX (SIDE VIEW)



1. InfiniTank™ solenoid (optional)
2. Autowash (optional)
3. Vacuum (inHG/kPa)
4. Motor temperature
5. Pump temperature
6. Oil level
7. Tank float (optional)
8. Water in oil
9. Water in pump
10. Ambient temperature/humidity

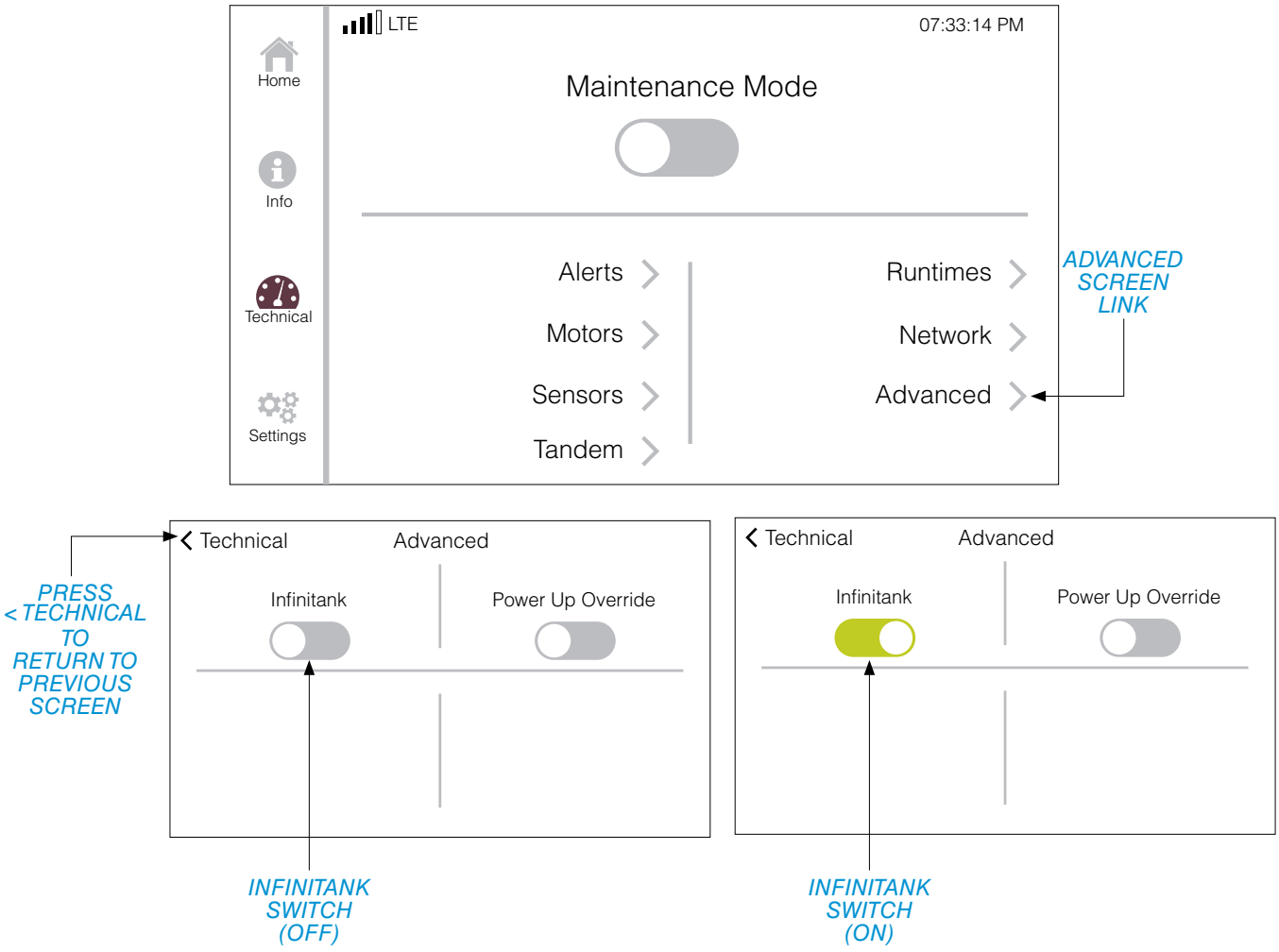
INFINITANK SWITCH

The *INFINITANK* switch should only be turned ON when using an InfiniTank system. For all other vacuum tanks, the *INFINITANK* switch should be turned OFF.

To access the *INFINITANK* switch, on the Technical screen, press *ADVANCED >*. This will open a new screen showing the *INFINITANK* switch.

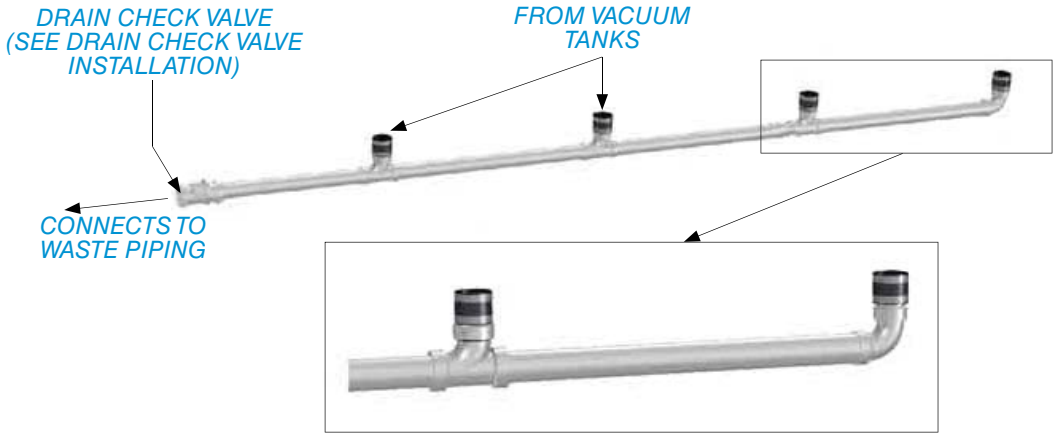
To enable the InfiniTank option, press the gray *INFINITANK* switch. The switch will turn green, indicating that the InfiniTank option is now ON. Pressing the green switch will turn the InfiniTank option OFF.

Press *< TECHNICAL* to return to the previous screen.



DRAIN AND WASTE DETAILS

MULTIPLE TANK SETUP



TANK DRAIN LINE

Waste pipe, slide valve and drain check valve:

- 1½" schedule 40 PVC with DWV fittings.
- Slope: Minimum 1/4" per 10 feet.
- Use only Ramvac supplied 1½" drain check valve.
- Drain into building sewer system.

Trap and drain branch:

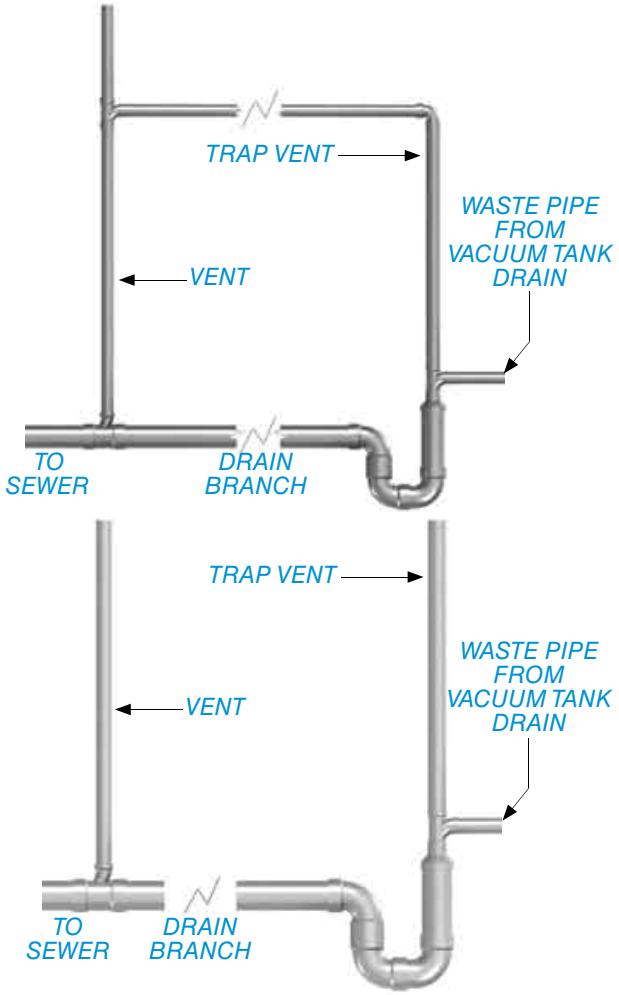
- Trap and drain branch line two sizes larger than waste pipe.
- Trap seal minimum 4" deep.

Vents:

- Trap vent size no less than half the trap and drain branch size.
- Vents no smaller than drain check valve.
- Vents must extend a minimum of 6" above tank top before turning horizontally.

NOTICE

Follow current NFPA 99c Edition, Ramvac instructions, and all local codes.



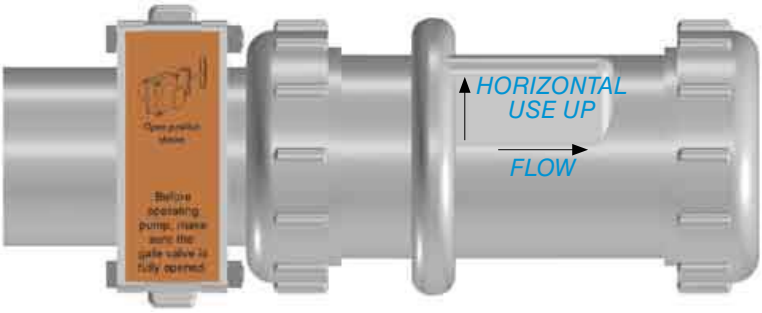
DRAIN CHECK VALVE INSTALLATION

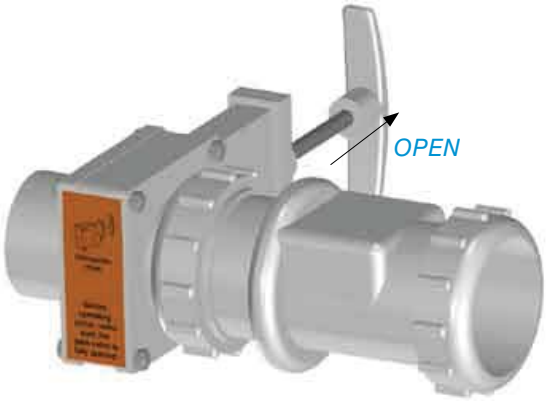
Install drain check valve assembly with:

- "HORIZONTAL USE UP" facing UP
- Pipes butted inside connecting couplers (no gaps)
- Flow toward sewer
- Fits 1½" schedule 40 PVC
- Slide valve open

NOTICE

Slide valve is for service use only. Leave in the open position.





VACUUM CHECK VALVE INSTALLATION

Install vacuum check valve assembly with:

- "THIS SIDE UP" facing up
- Pipes butted inside connecting couplers (no gaps)
- Flow toward vacuum unit
- Fits 2" schedule 40 PVC
- Isolates non-operating vacuum units



TANK INLET MANIFOLD FOR MULTIPLE TANKS



NOTICE

If reducing main trunk diameter, **DO NOT** create a low spot.

FACILITY VACUUM LINE FROM OPERATORIES

NOTICE

Follow current NFPA 99c Edition, Ramvac instructions, and all local codes.

Vacuum Model RV4-12:

- Up to 5 rooms: 1½" (or larger) schedule 40 PVC with DMW fittings or equivalent.
- 5 to 15 rooms: 2" (or larger) schedule 40 PVC with DMW fittings or equivalent.

Vacuum Models RV5-2, RV7-2 and RV10-2:

- 2" (or larger) schedule 40 PVC with DMW fittings or equivalent.

All Vacuum Models:

- Slope: Minimum 1/4" per 10 feet.
- If an in-line low spot is unavoidable, place it in a known location and incorporate a clean-out.
- For overhead plumbing, contact Ramvac.
- For nitrous oxide scavenging, contact Ramvac.

TANK TO VACUUM POWER UNIT LINE

Vacuum Model RV4-12:

- 1½" (or larger) schedule 40 PVC with DMW fittings or equivalent.

Vacuum Models RV5-2, RV7-2 and RV10-2:

- 2" (or larger) schedule 40 PVC with DMW fittings or equivalent.

All Vacuum Models:

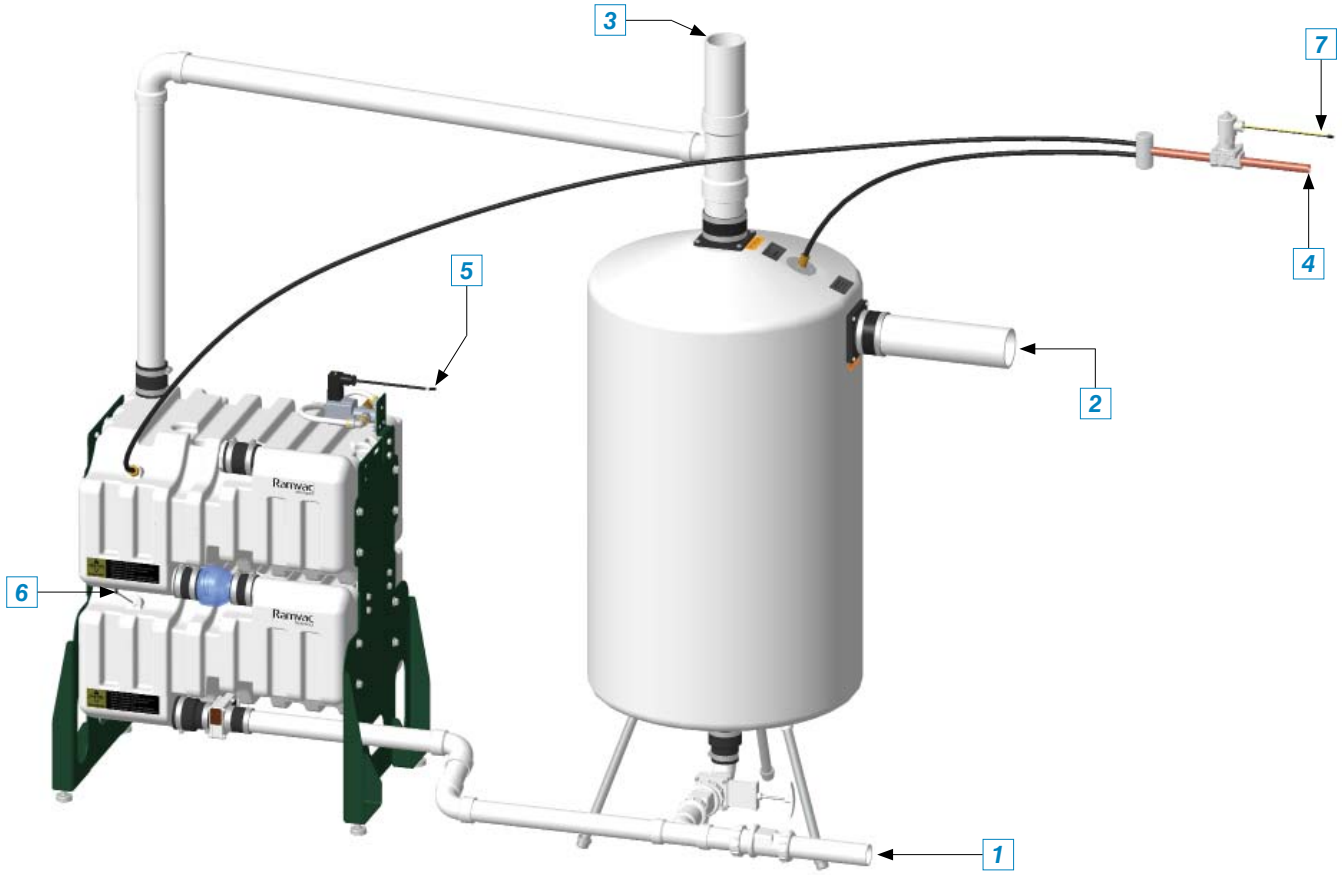
- Use new, clean pipe to connect tank to power unit; do not use old or existing pipe.

HOW THE SYSTEM WORKS

The autowash is an automatic device that controls washdown of the vacuum tank. The system is built to connect to an electrically operated water valve connected to the facility water source. The outlet of the water valve is connected to a spray nozzle mounted in the Ramvac vacuum tank.

When the vacuum pumps are turned off, a “delay” timer is started and begins to count down. The “delay” timer is set for 2 hours and when the timer reaches zero, power is applied to the autowash solenoid for 2 minutes to supply water to the spray nozzle. If the vacuum system is turned on during that period, the autowash process will immediately cease.

SYSTEM SCHEMATIC



1 Connects to waste piping (see *SECTION IV - PLUMBING - DRAIN AND WASTE DETAILS*)

2 Connects to operatories* *(see SECTION IV - PLUMBING - FACILITY VACUUM LINE FROM OPERATORIES)*

3 Connects to vacuum unit** *(see SECTION IV - PLUMBING - TANK TO VACUUM POWER UNIT LINE)*

4 Facility water supply piping

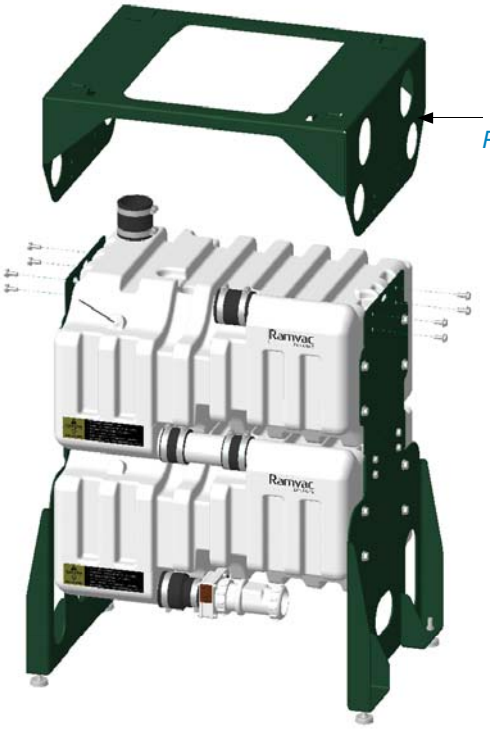
5 Connects to Aeras control INFINITANK (opt.) connector *(see SECTION III - AERAS CONTROL - CONNECTIONS)*

6 Connects to Aeras control TANK FLOAT (opt.) connector *(see SECTION III - AERAS CONTROL - CONNECTIONS)*

7 Connects to Aeras control AUTOWASH (opt.) connector *(see SECTION III - AERAS CONTROL - CONNECTIONS)*

**Tank inlet for 50-gallon tank is 3".*
***Tank outlet for 50-gallon tank is 3". Tank outlet for InfiniTank is 2".*

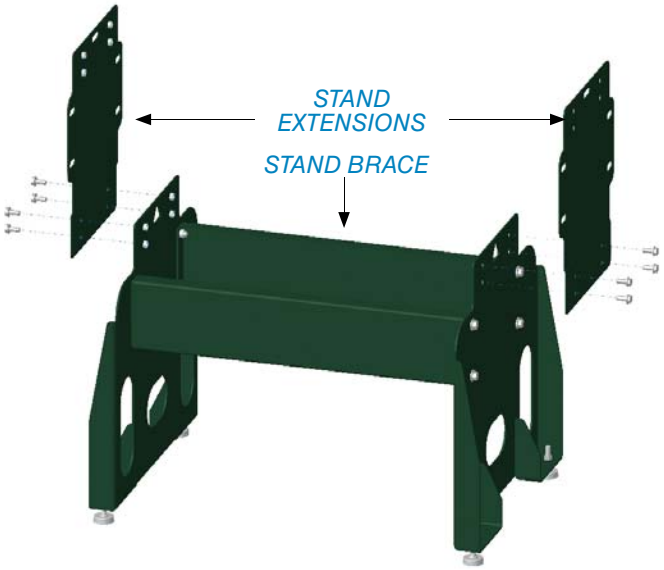
TANK VACUUM PLATFORM





30-GALLON TANK WITH PLATFORM AND RV5-2, RV7-2 OR RV10-2 VACUUM UNIT

TANK 12" HEIGHT EXTENDER

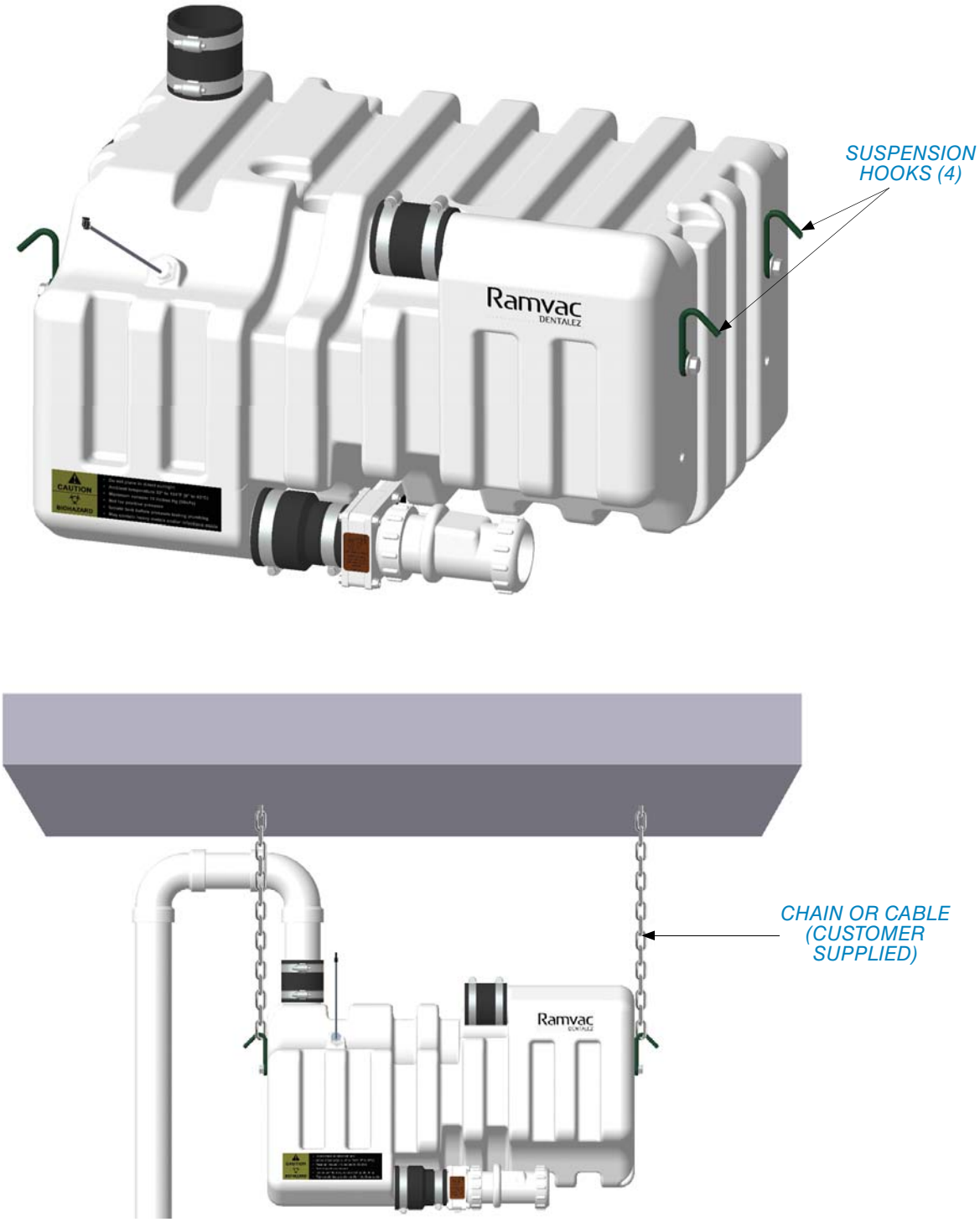




15-GALLON TANK WITH 12" EXTENDER

Aeras
Ramvac

TANK SUSPENSION HOOKS



NOTES:

LIMITED WARRANTY

AERAS VACUUM TANK FROM RAMVAC

DENTALEZ and its employees are proud of the products we provide to the dental community. We stand behind these products with a warranty against defects in material and workmanship as provided below and have our own in-house repair facility to service our products.

In the event that you experience difficulty with the application or operation of any of our products, please contact our customer service department at our expense at (866) DTE-INFO.

If we cannot resolve the issue by telephone, we will arrange for a representative to contact you or suggest that the product be returned to our factory for inspection.

If product return or repair is required, we will provide you with a Return Authorization number and shipping instructions to return the product to the proper facility. If the product is under warranty, we will ask you to provide proof of purchase such as a copy of your invoice. Please be sure to include the Return Authorization number on the package you are returning. Products returned without a return authorization number cannot be repaired.

Freight costs for product returns are the responsibility of the customer. Products under warranty will be repaired or replaced, at our sole discretion, and returned at our expense. Products outside the warranty limits will be repaired and returned with costs invoiced to the customer. We are not responsible for shipping damages. We will, however, help you file a claim with the freight carrier. Written repair estimates are available.

SCOPE OF WARRANTY

DENTALEZ warrants all Aeras Dry Vacuums to be free of defects in material and workmanship, under normal usage and service. DENTALEZ' obligations under this warranty is limited to the repair or replacement, at our option, of the defective parts which are reported to DENTALEZ during the applicable warranty period.

APPLICABLE WARRANTY PERIOD

Aeras Dry Vacuums	6 Years/4,200 hours from date of installation
Aeras Dry Vacuums with Aeras Smart Monitoring Service	8 Years /5,600 hours from date of installation provided the following additional terms applicable to this 8 year extended warranty are met: --Aeras Smart Monitoring Service must be continuously maintained throughout the eight (8) year warranty period --Aeras Vacuum must be serviced and maintained by DENTALEZ or by an authorized DENTALEZ dealer in accordance with DENTALEZ' maintenance schedule and as provided in the manual --Only genuine Ramvac parts are used for all repairs and maintenance
Rotary Vane Pumps	10 Years from date of installation
OWL Touch	2 Years from date of installation

EXCLUSIONS

- This warranty covers manufacturing defects only and does not cover defects resulting from abuse, negligence, alterations, accidents, misuse, improper handling, cleaning, care or maintenance. Damage resulting from the use of chemicals, cleaners, disinfectants [or sterilization] is not covered under this warranty nor is normal wear and tear. Failure to follow or observe our operating/use, maintenance and/or installation instructions voids this warranty as does [installation or other work performed by anyone other than DENTALEZ or its authorized dealers] the use of non-authorized parts and repairs made by an unauthorized repair facility.

EXCLUSIVE REMEDY

Liability is limited to repair or replacement of the defective part(s) at our sole discretion. All other liabilities, in particular liability for damages, including, without limitation, special, exemplary, consequential or incidental damages are excluded and DENTALEZ shall not be liable for loss of profits or loss of use.

AUTHORIZATION

THIS WARRANTY IS DENTALEZ' ONLY WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO EMPLOYEE, REPRESENTATIVE OR DEALER IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR TO GRANT ANY OTHER WARRANTY.

WARRANTY REPAIRS

Parts repaired or replaced on a product that is in warranty will be warranted for the duration of that product's original warranty.

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DENTALEZ

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