STS™

SUPER TURBINE SUCTION

DUAL STAGE DRY VACUUM SYSTEM WITH THE CYCLONIC ACTION SEPARATOR (CAS™)

54500 STS-5™ with 8 GALLON CAS™
54700 STS-10™ with 8 GALLON CAS™

USER'S MANUAL

ISO 9001
ISO 13485
FDA-GMP COMPLIANT

AIR TECHNIQUES INC.

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CONGRATULATIONS

Congratulations on the purchase of your new **STS™** Dual Stage Dry Vacuum System (Super Turbine Suction). The **STS™** is a dry vacuum pump that produces high-volume air flow with multiple users online. The **STS™** is a medical dry vacuum pump which is designed for use in a dental facility. The **CAS™** (Cyclonic Action Separator) tank will ensure that no liquids or foams enter the vacuum pump. The relief valve is easily accessible on the **CAS™**. The patented vacuum relief valve maintains a constant uniform vacuum. The powerful permanent split capacitor motor, with a highly reliable contactor and powerful transformer can be depended upon to start every time. Your **STS™** vacuum system and **CAS™** separator tank are easily installed and maintained.

This manual provides operation, installation, and maintenance instructions for the support of the **STS™** Dual Stage Dry Vacuum System**.** Review and follow the guidelines included in this User Manual to ensure that the system provides the highest level of service.

WARRANTY

The **STS™** and **CAS™** are warranted to be free from defects in material and workmanship from the date of installation for a period of thirty-six (36) months.

Any item returned to our factory in Hicksville, New York, through an Air Techniques Authorized Dealer, will be repaired or replaced at our option at no charge provided that our inspection shall indicate it to have been defective. Dealer labor, shipping and handling charges are not covered by this warranty.

This warranty does not apply to damage due to shipping, misuse, careless handling or repairs by other than authorized service personnel. Warranty is void if equipment is installed or serviced by other than dealer service personnel authorized by Air Techniques. Air Techniques, Inc. is not liable for indirect or consequential damages or loss of any nature in connection with this equipment.

This warranty is in lieu of all other warranties expressed or implied. No representative or person is authorized to assume for us any liability in connection with the sale of our equipment.

ON-LINE WARRANTY REGISTRATION

Quickly and easily register your new **STS™** on-line. Just have your product model and serial numbers available. Then go to the Air Techniques website, **www.airtechniques.com**, click the **warranty link** and complete the registration form. This on-line registration ensures a record for the warranty period and helps Air Techniques keep you informed of product updates and other valuable information.

SAFETY INSTRUCTIONS

Use of the **STS™** not in conformance with the instructions specified in this manual may result in permanent failure of the unit.

WARNING: To prevent fire or electrical shock, do not expose this appliance to rain in or moisture.

All user serviceable items are described in the maintenance section.

Manufacturing date code on serial number label is in the format Month YYYY.

ATTENTION USERS:

Alerts users to important Operating and Maintenance instructions. Read carefully to avoid any problems.

Warns users that uninsulated voltage within the unit may be of sufficient magnitude to cause electric shock.

I ON
O OFF

Indicates the ON and OFF position for the Equipment power switch.

Indicates type B equipment in accordance with IEC 601-1

Warns users of hot surfaces.
There is a danger of burns. Work near these surfaces only after they have cooled down.

Indicates protective Earth Ground for the Equipment power switch.

SIZING GUIDE

Choosing the correct size **STS™** to meet practice depends on the number of air users and the anticipated air demand. To assure optimum operation, the demands should not exceed the number of air handpiece users shown below. Each chart lists the number of simultaneous High Volume Evacuators (HVEs) and Saliva Ejectors (SEs) that can be used in specific STS systems.

STS-5 SYSTEM (with 1 CAS)		
HVE's	+	SE's
5	+	0
4	+	2
3	+	4
2	+	6
1	+	8
0	+	10

STS-10 SYSTEM (Two STS-5s Connected Together with 1 CAS)		
HVE's	+	SE's
10	+	0
9	+	2
8	+	4
7	+	6
6	+	8
5	+	10
4	+	12
3	+	14
2	+	16
1	+	18
0	+	20

KEY PARTS IDENTIFICATION

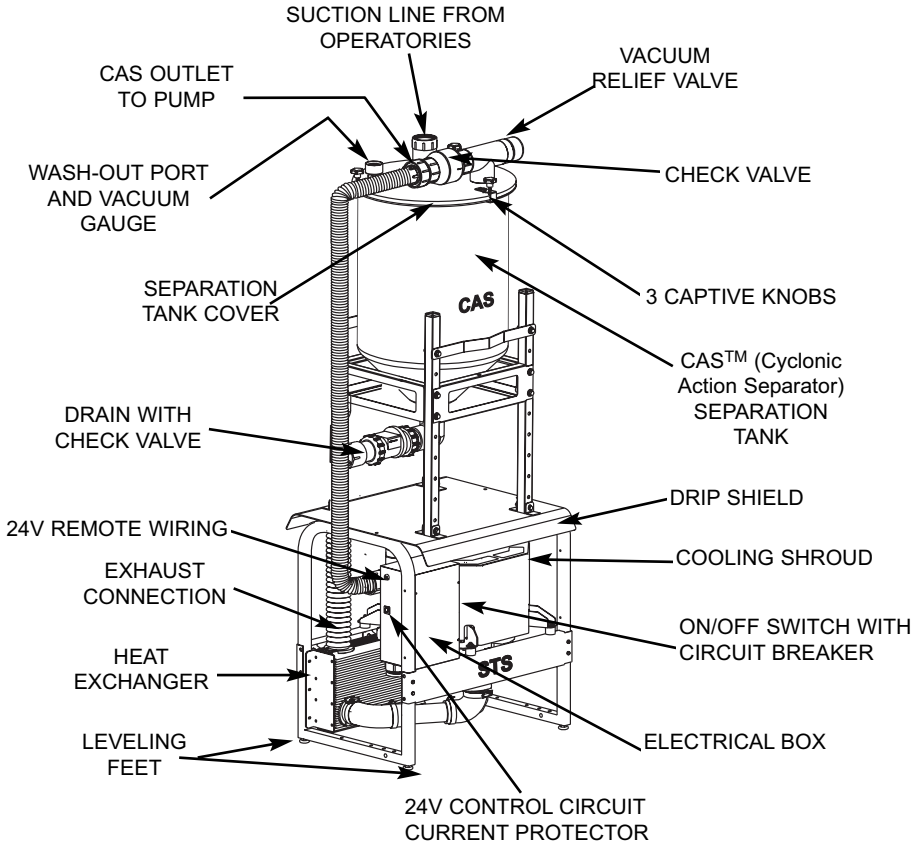


Figure 1. STS-5 with 8 Gallon CAS Main Parts Location

SITE REQUIREMENTS

ELECTRICAL	SINGLE (STS-5)	DUAL (STS-10)
Minimum Circuit Breaker Rating	20A	20A (Qty 2) Recommended or 40 A (Qty 1)
Wire Size AWG Minimum Gauge	#12	#12AWG (Qty 2) or #8AWG (Qty 1)
Receptacle	NEMA 6-15 R	NEMA 6-15 R (Qty 2)
PLUMBING	**SINGLE (STS-5)**	**DUAL (STS-10)**
Exhaust Vent Pipe	2-Inch Schedule 40 Pipe	3-Inch Schedule 40 Pipe
Suction Line		
Riser Diameter ID	1/2 Inch	1/2 Inch
Branch Line Diameter ID Minimum	1 Inch	1 Inch
Main Line Diameter ID	1-1/2 Inch	1-1/2 or 2 Inch
End Fitting at STS	1-1/2-Inch FNPT	1-1/2-Inch FNPT
Drain Line	1-1/2-Inch Schedule 40 Pipe	1-1/2-Inch Schedule 40 Pipe
Wash-Out Line	3/4-Inch Garden Hose	3/4-Inch Garden Hose
Ambient Temperature	40 to 104°F (10 to 40°C)	40 to 104°F (10 to 40°C)

PRODUCT SPECIFICATIONS

ELECTRICAL	SINGLE (STS-5)	DUAL (STS-10)
Voltage (Minimum/Maximum)	200/250	200/250
Full Load	13 Amps	26 Amps
Starting Load	65 Amps	130 Amps
Frequency	60 Hz	60 Hz
Maximum Vacuum	15 InHg	15 InHg
Preset Vacuum Level	10 InHg	10 InHg
Maximum Exhaust Air Flow	40 SCFM	80 SCFM
CAS™ SPECIFICATIONS		
Working Liquid Capacity:	8 Gallons plus adequate capacity for foam	8 Gallons plus adequate capacity for foam
Tank Material	304 Stainless Steel	304 Stainless Steel
ENVIRONMENTAL CONDITIONS		
Operating Temperature	40 to 104°F (10 to 40°C) with PVC vent pipe	40 to 104°F (10 to 40°C) with PVC vent pipe
Storage Temperature	0 to 150°F (-18 to 66°C)	0 to 150°F (-18 to 66°C)
Relative Humidity	90% (no condensation)	90% (no condensation)
Exhaust Fan Requirements	600 CFM Minimum	1200 CFM Minimum

IEC601-1 CLASSIFICATION

Class 1, Type B, Transportable, Continuous Operation

Equipment not suitable for use in thr presence of flammable anaesthetic mixture(s).

Protection against ingress of liquids -Ordinary

DIMENSIONS

	SINGLE (STS-5)				DUAL (Two STS-5 Pumps Stacked)			
	Weight	Width	Depth	Height	Weight	Width	Depth	Height
STS™	125 Lbs.	24-1/4 in.	16-3/4 in.	23-1/2 in.	250 Lbs.	24-1/4 in.	16-3/4 in.	46-1/2 in.
8-Gallon CAS™	40 Lbs.	23-1/2 in.	18-3/4 in.	46 in.	40 Lbs.	23-1/2 in.	18-3/4 in.	46 in.

INSTALLATION INFORMATION

Grounding reliability can only be achieved when the equipment is connected to a receptacle marked HOSPITAL ONLY or HOSPITAL GRADE.

For new installations it is recommended to follow the following guidelines:

- Suction line from the operatories to be a minimum of 1-1/2" diameter. and must be sloped (1/4" minimum for every 10') toward the separation tank. The suction line should not have any sharp right angle bends.
- The suction line should be connected to the CAS™ separation tank with a short run of 1-1/2" diameter. flexible tubing.
- The STS™ system can replace water ring pumps with smaller diameter piping in existing installations.
- The drain on the base of the separation tank must be connected to an open floor drain capable of handling 10 gallons in 30 seconds. Drain pipe size 1-1/2" schedule 40.
- The drain line should be a short run with a minimum slope of ¼" for every 10' toward the drain (avoid any sharp right angle bends).
- The vent line should be 2" diameter pipe for a single STS™ and 3" diameter. pipe for a dual system. The vent should be sloped 1/4" per 10' towards the pump. Vent line must be capable of handling vapors and liquids.
- The outside vent must be protected from rain and animals.
- A flexible air exhaust hose is provided to connect to the 2" diameter vent pipe and heat exchanger. Hose clamps are provided to secure hose to heat exchanger and pipe.
- Wash-out port uses a 3/4" garden hose connection, affixed to the CAS™.
- Refer to pages 9 through 11 for mounting and securing instructions.

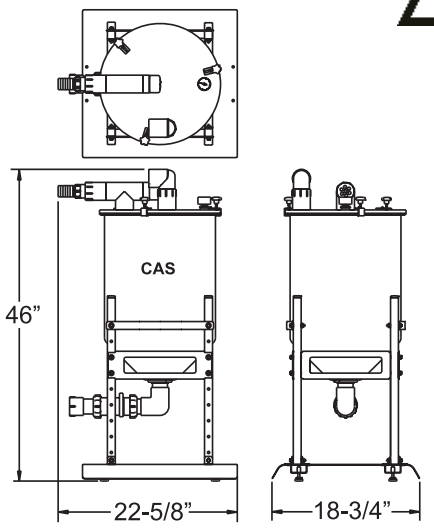
Any time the power to the STS™ is turned OFF the CAS™ tank will automatically drain.

OPERATING INFORMATION

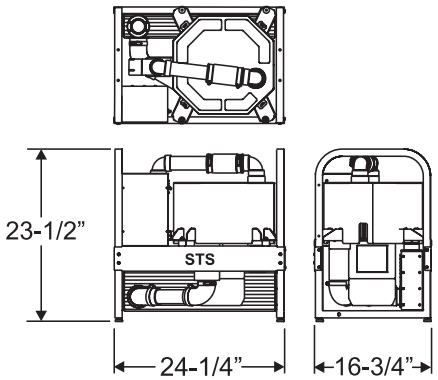
- The STS™ may be turned "ON/OFF" from a single, convenient location within the dental office using a Remote Control Panel. Remote wiring must be done by a licensed electrician in accordance with local codes.
- The vacuum level is factory preset at 10 in Hg (inches of mercury). This is the reading on the gauge when all HVE's and SE's are CLOSED. If this setting needs to be adjusted contact your dealer to readjust the setting.
- The unit is capable of running continuously. To conserve electricity, the system may be turned off when not in use.
- The CAS™ separation tank has been designed to collect the fluids evacuated during a normal operating day. If an excessive amount of fluids are collected in the CAS™, the protective mechanism in the CAS™ will interrupt the vacuum flow in order for the tank to automatically drain. This process takes approximately 30 seconds. To restore the vacuum to full operation turn OFF the power to the STS™ for a minimum of 10 seconds and then turn back ON.
- Turn the power OFF at the end of the day. This will drain collected liquids in the CAS™ separation tank.

STS-5/STS-10 Configuration Dimensions. Figure 5 shows the space requirements for the installation of the STS-5 and STS-10 model configurations. Please note that all CAS heights can be increased by 4 inches and decreased by 6 inches using the adjusting holes in the 4-rail support assembly.

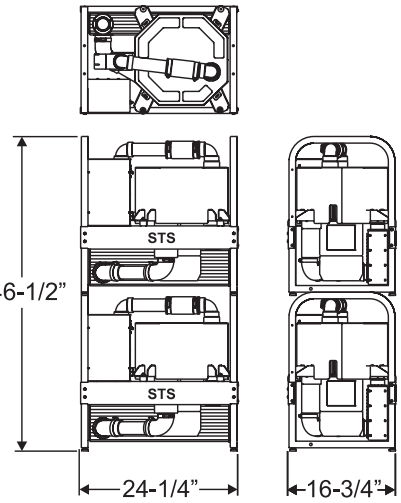
Always bolt or secure installation to the floor or wall when stacking the CAS onto STS pumps.



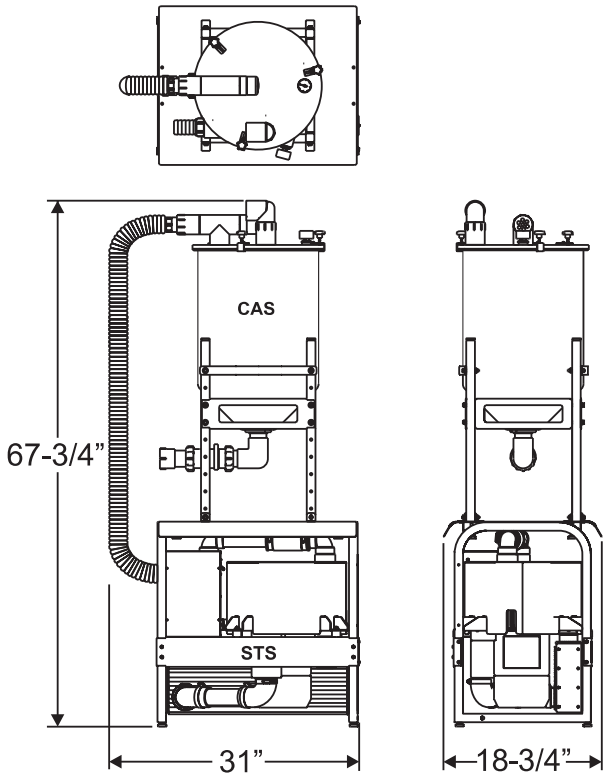
8 GALLON CAS, P/N 54300



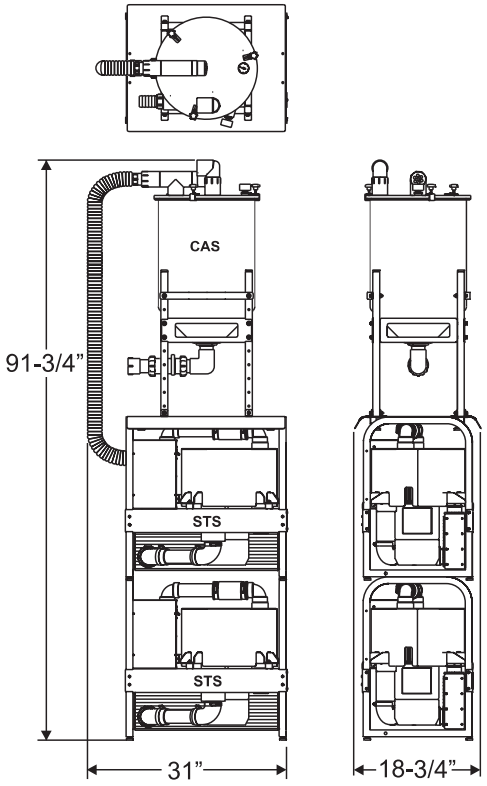
STS-5, P/N 54100



2 STS-5 Pumps Stacked Together
Used in STS-10 Configurations



STS-5 with 8 GALLON CAS, P/N 54500



STS-10 with 8 GALLON CAS, P/N 54000

Figure 2. STS-5 and STS-10 with Stainless 8 Gallon CAS Configuration Dimensions

PIPE FLOW SCHEMATIC

Figure 3 shows the overall functional flow of STS systems with a CAS tank. Inlet and outlet connections to the tank is made at the top of the tank. This arrangement provides flexibility in installation, makes maintenance easier and adds to overall tank efficiency.

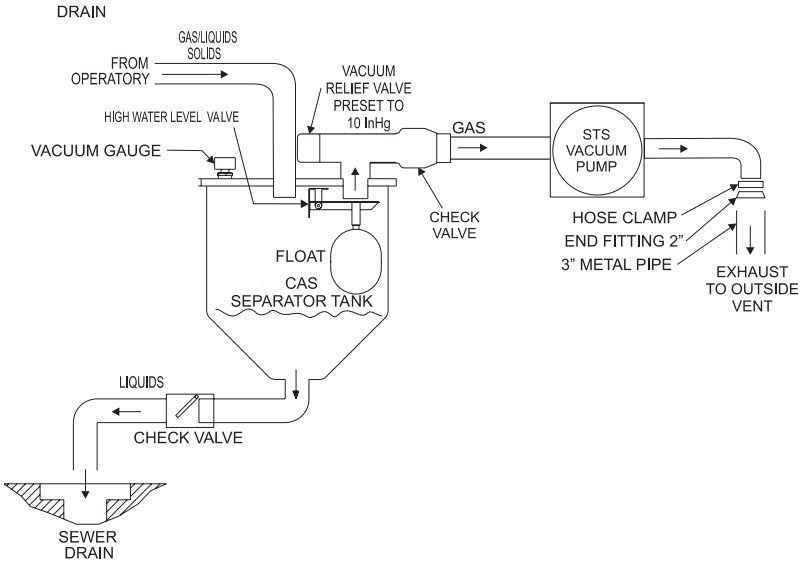


Figure 3. STS with Stainless 8 Gallon CAS Functional Flow Diagram

INSTALLATION

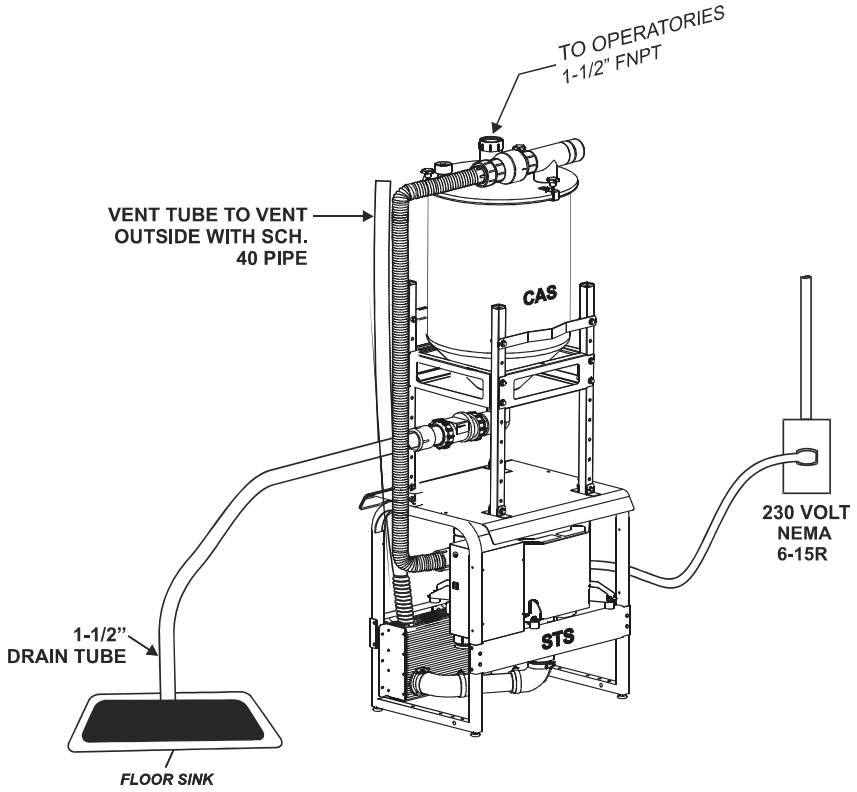


Figure 4. Typical STS-5 with Stainless 5 Gallon CAS Stacked Completed Installation

SINGLE STS (STS-5) PVC HOSE INSTALLATION.

Note: Each kit provides the required hoses, clamps and adapters. No schedule 40 PVC pipe is included. Refer to page 18 for the contents of each kit. If more than 10 feet of hose is needed, order P/N 54118 (order by the foot)

Installation Accessory Packs . Figure 5 shows the pipe and hose connections required for all STS configuration installations using accessory packs as follows:.

CAS™ Tank Accessory Pack, P/N 54350 - used to make the following connections:
Between the suction line and CAS tank. Item (1) on associated figure.
Between the CAS tank and STS pump. Item (2) on associated figure.
Between the CAS tank and drain line. Item (3) on associated figure.

STS™ Pump Accessory Pack, P/N 54150 - supplied with each STS pump, used to connect each pump to the facility vent line. Item (4) on associated figure.

Connection Procedure. Installation of a single STS model configurations consist of making connections between a single 8 gallon CAS tank, P/N 54300, and a STS pump, P/N 54180. Refer to Figure 5 for the connection diagram and perform the following procedure.

1. Refer to Figure 2 and determine the installation footprint dimensions and connection requirements. Place the CAS tank and STS pump in position.
2. If installing side-by-side configuration, proceed to step 4. If stacking, perform step 3.
3. When stacking the CAS tank on top of a STS pump, refer to Figure 6 and secure the tank to pump using supplied hardware. Make sure to bolt or secure installation to the floor or wall when stacking any STS system.
4. Measure and record distance between each connection point.
5. Cut the supplied hose to the length required for each connection.
6. Using industry standard techniques, install pipe to hose adapters as shown in Pipe Connection Diagram Figure 5.
7. Install hoses and secure with associated clamps.

LEGEND

\# Included in supplied accessory packs.

* Not Included

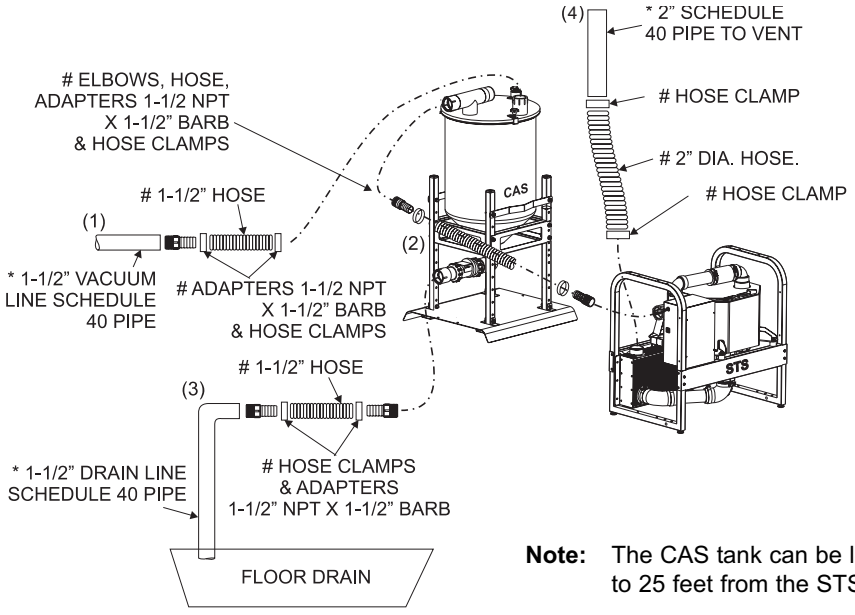
REQUIRED CONNECTIONS

(1) CAS tank suction input to facility suction line

(2) CAS tank pump outlet to STS pump inlet

(3) CAS tank drain to facility drain line

(4) STS pump to the facility vent line



Note: The CAS tank can be located up to 25 feet from the STS Pump.

Figure 5. STS Pump and CAS Tank Pipe Connection Diagram

DUAL STS (STS-10) PVC HOSE INSTALLATION.

Note: Each kit provides the required hoses, clamps and adapters. No schedule 40 PVC pipe is included. Refer to page 18 for the contents of each kit. If more than 10 feet of hose is needed, order P/N 54118 (order by the foot)

Installation Accessory Packs . Figure 5 shows the pipe and hose connections required for a dual STS configuration installation using accessory packs as follows:

CAS™ Tank Accessory Pack, P/N 54120 - used to make the following connections:
Between the suction line and CAS tank. Item (1) on associated figure.
Between the CAS tank and drain line. Item (2) on associated figure.
Between the CAS tank and combined STS pumps. Item (3) on associated figure.

STS™ Pump Accessory Pack, P/N 54150 - used to connect each pump to the facility vent line. Item (4) on associated figure.

STS™ Dual Manifold Accessory Kit; P/N 54400 - used to connect two STS pumps together either side-by-side or stacked.

Connection Procedure. Installation of the dual STS model configuration consists of making connections between a single 8 gallon CAS tank P/N 54300, and two STS pumps, P/N 54180. Refer to Figure 5 and perform the following procedure. The tank and associated pumps can be stacked or installed side-by- side depending on the size of the installation site. When stacking the CAS tank and two STS pumps, refer to Figures 6 and 7 showing the method to secure the tank and pumps. In any case, the hose connections between the suction line and CAS tank, the CAS tank and drain line and pump to the facility vent line are identical as shown by Figure 5. Use the STS™ Dual Manifold Accessory Kit; P/N 54400 to connect the two STS pumps together for connection to the CAS tank as shown by Figure 8. Refer to Figures 5 through 8 and perform the following procedure.

Note: Each STS pump is shipped with an inlet manifold, which must be removed when used in a dual configuration.

1. Install check valves supplied in Dual Manifold Accessory Kit; P/N 54400, on both pumps as shown by Figure 8.
2. Refer to Figure 2 and determine the installation footprint dimension and connection requirements. Place the CAS tank and STS pumps in position.
3. If installing side-by-side configuration, proceed to step 6.
   If stacking, perform step 4.
4. Stack the two STS pumps as shown by Figure 7 and secure the pumps together using supplied hardware.
5. Refer to Figure 6 and stack the CAS tank onto the two STS pumps. Secure the tank to the top pump using supplied hardware.
6. Measure and record distance between each connection point as shown in the corresponding Pipe Connection Diagram (Figures 5 and 8).
7. Cut the supplied hose to the length required for each connection.
8. Using industry standard techniques, install pipe to hose adapters as shown in the corresponding Pipe Connection Diagram (Figures 5 and 8).
9. Install hoses and secure with associated clamps.

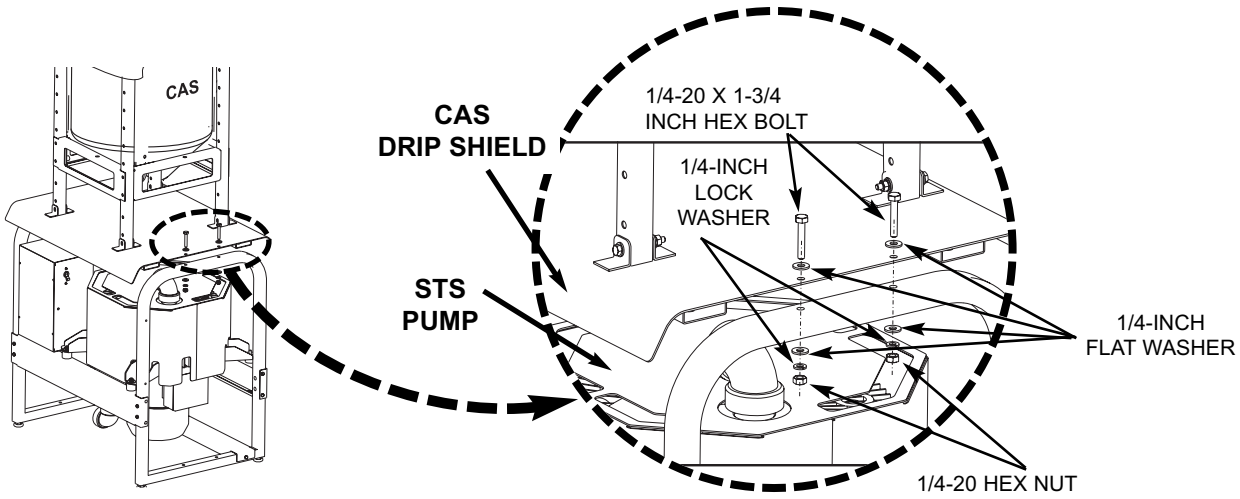


Figure 6. Stacking the CAS on Top of a STS Pump Hardware Detail

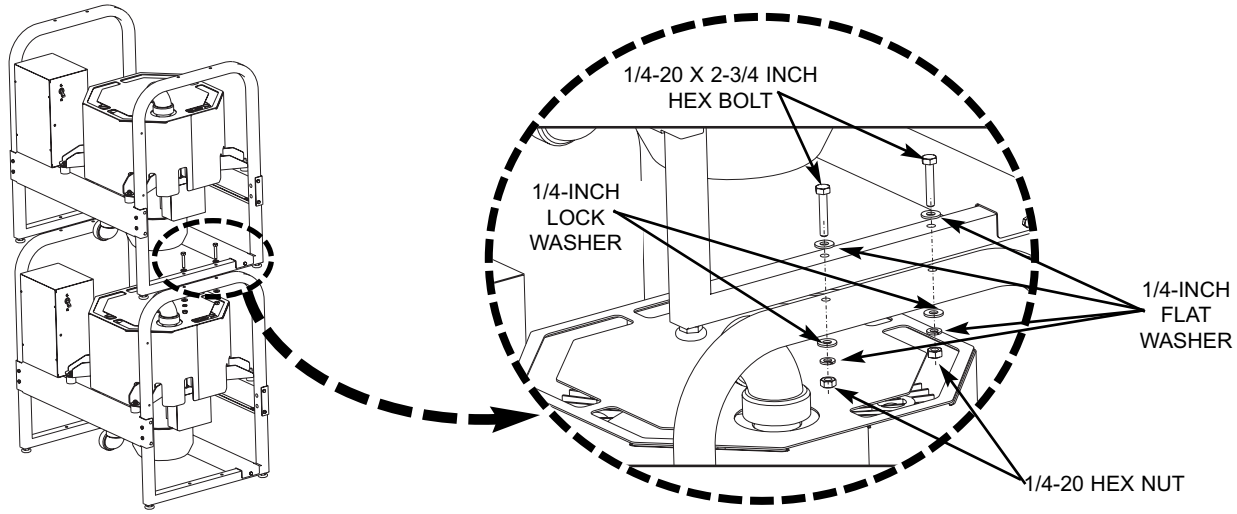


Figure 7. Stacking Two STS Pumps Hardware Detail

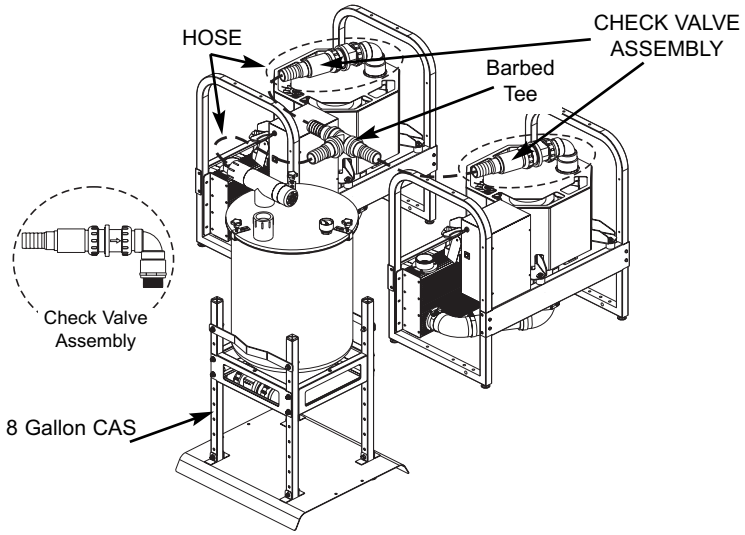


Figure 8. Pump Combining Using Accessory Kit, P/N 54400

ELECTRICAL BOX PARTS IDENTIFICATION

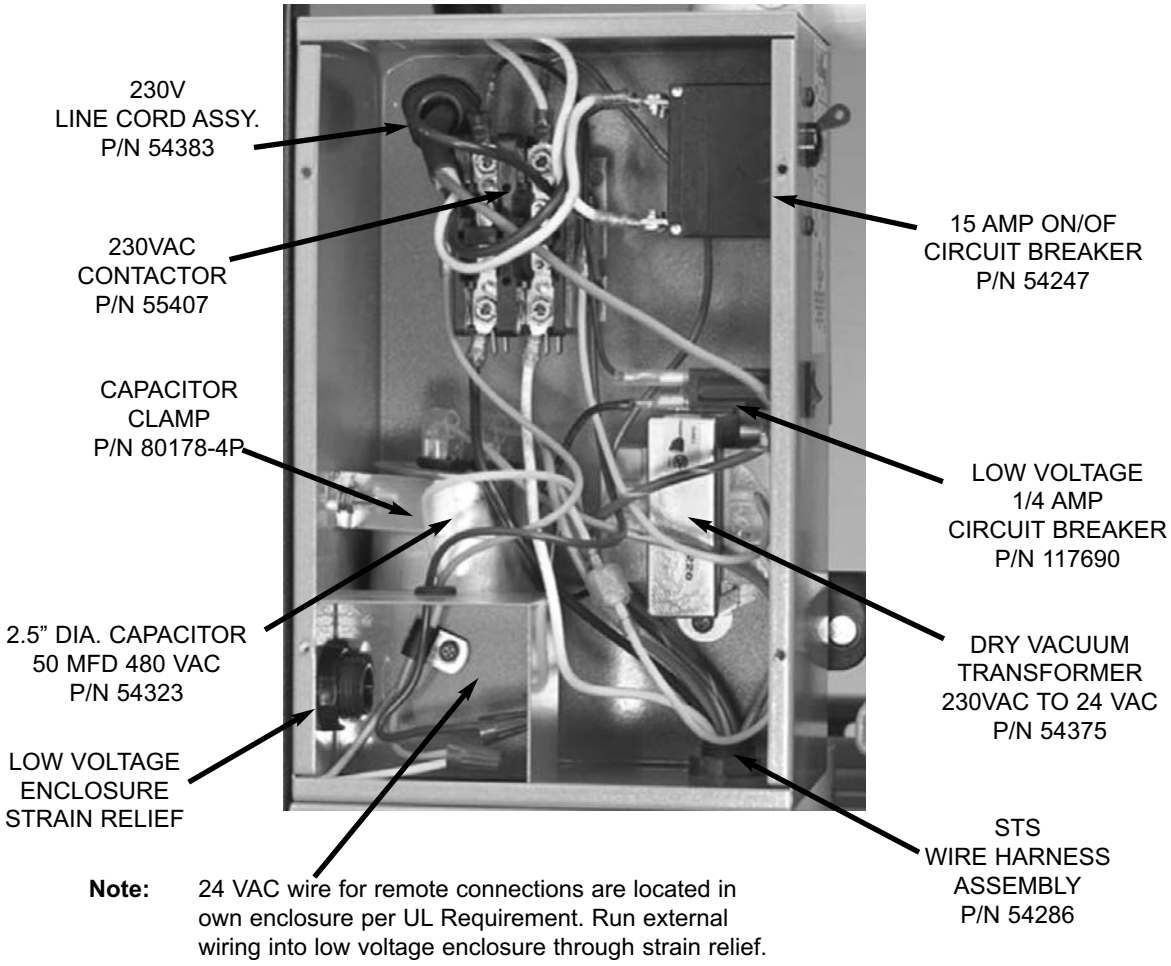


Figure 9. STS-5 Electrical Box Parts Location

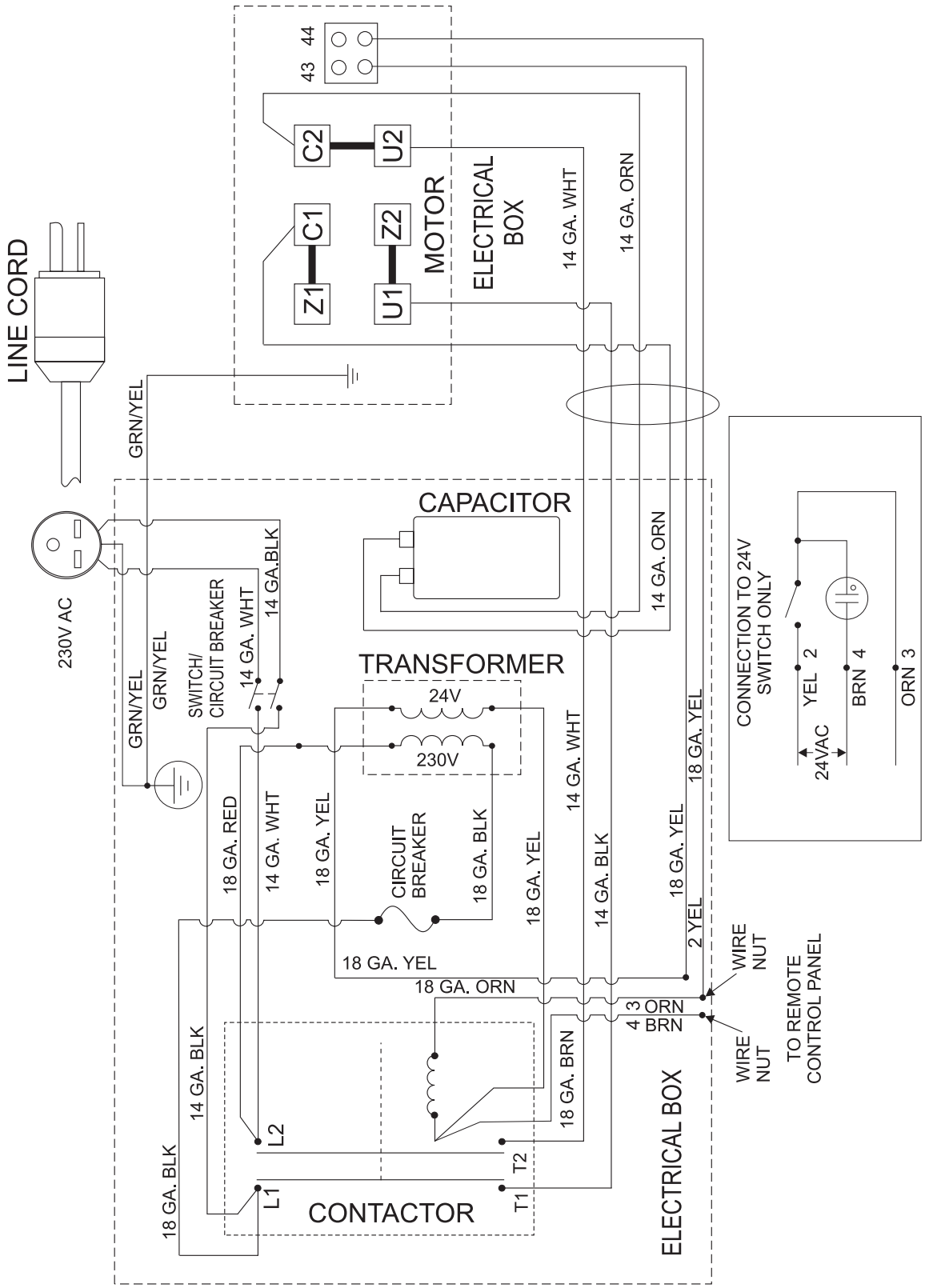
ELECTRICAL CONNECTIONS

Remove all power to the system prior to working within the electrical box.Contacting high voltage can cause serious injury or even death

All systems must be wired directly from an electrical box that complies with local electrical codes

Figures 9 and 10 show the parts identification and associated schematic of the electrical box used in STS-5 system pumps. Refer to the figures when making electrical connections or replacing a defective component isolated as a result of performing troubleshooting procedures.

Please note that a Boost/Buck Transformer must be installed if the facility power is below the minimum 200V required prime input power.



NOTE: ALL REMOTE PANEL (24V SWITCH) WIRES SHOULD BE CONNECTED INTERNAL TO THE ELECTRICAL BOX. USE PROVIDED STRAIN RELIEF.

Figure 10. Electrical Box Schematic for STS-5 and STS-10 Models

Preventive Maintenance

Whenever a service technician fulfills a repair call at the customer site routine checks should also be performed to detect general overall wear, and replacement of parts should be made if necessary before a failure causes a prolonged shut-down. This preventive maintenance program will aid in dependable equipment operation and help reduce breakdown.

Initial Maintenance

The **CAS™** uses patented technology to provide cyclonic action cleaning within the tank. After installation, clean the vacuum lines with Clean Stream™ Cleaner. This is especially necessary when a new system is being installed into existing dental system piping. Using Clean Stream™ Cleaner helps the **STS™** system to remove any built up deposits in the piping system.

Daily Maintenance Recommendation

Further, to maintain the cleanliness of the **CAS™**, including all the vacuum lines and tubing in the dental system, Air Techniques recommends that the dental office personnel be instructed to use Clean Stream™ Cleaner daily as part of the overall preventive maintenance program.

Yearly Maintenance

Although the **CAS™** uses patented technology to provide cyclonic action cleaning within the tank during operation of the **STS™** system, the tank does need to be inspected and cleaned yearly to insure proper operation. Procedures to inspect and clean the new and old style **CAS™** tanks are provides by the following pages. Perform the procedures corresponding to the to installed tank style to remove any solids trapped in the tank.

Maintenance-Free STS Pumps

All STS pumps are designed for maintenance-free operation. The pump features a powerful permanent split capacitor motor, with a highly reliable contactor and powerful transformer. The motor is completely water and oil-free and provides a dependable operation requiring no scheduled maintenance.

Yearly Tank Maintenance Procedure. Refer to Figure 11 and perform the procedures to remove any solids trapped in the tank.

1. Turn OFF the power to the **STS™**.
2. Remove the vacuum gauge and bushing assembly.
3. Attach the male garden hose adapter to the wash-out port in the **CAS™** (Be sure to include washers).
4. Attach the the water supply to the garden hose adapter (use female garden hose adapter if required).
5. Run water through the **CAS™** for approximately 5 minutes.
6. Remove the male garden hose adapter from the **CAS™** and re-install the gauge and bushing assembly using teflon tape.

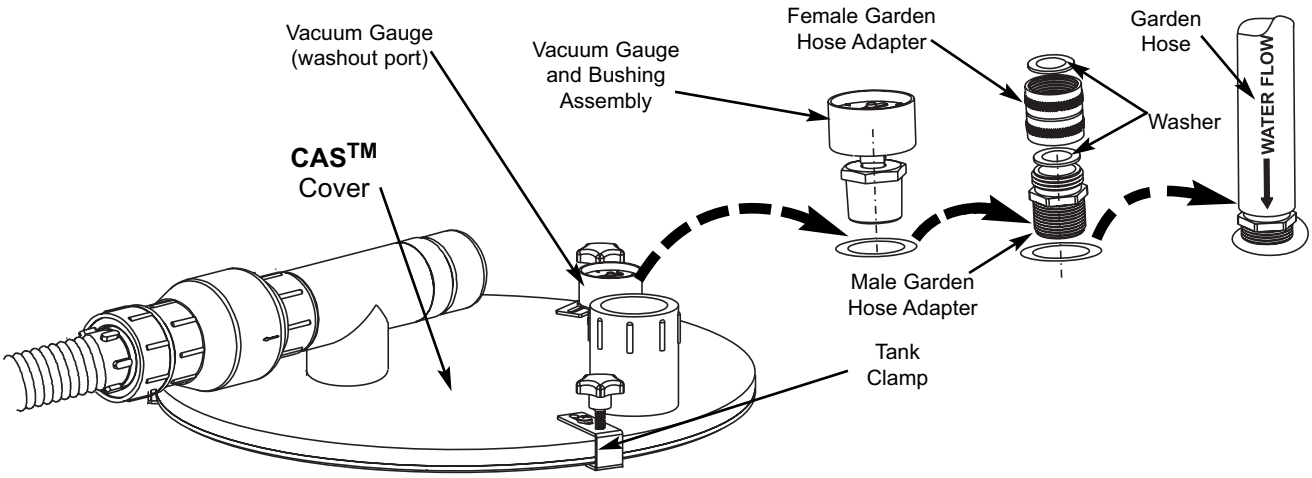


Figure 11. Stainless CAS Washout Port Detail

Over or under adjustment of the Vacuum Relief Valve can degrade overall system operation. Adjustments should only be made to keep the suction level at the factory-set 10 InHg level, which is adequate to provide optimum operation.

Vacuum Relief Valve Adjustment

The **STS™** system vacuum level is factory set at 10 InHg (inches of Mercury) as shown by the Vacuum Gauge. This suction level is more than adequate to provide a properly sized system service for a multiple-user dental facility. Whenever the suction level varies above or below the factory set point, adjustments can be made as necessary via the Vacuum Relief Valve. Refer to Figure 12 and adjust the system suction level by performing the following:

1. Access Vacuum Relief Valve by removing Vacuum Relief Valve Cap from the Vacuum Connection Assembly.
2. Hold Adjusting Nut with a 7/16-inch open-end wrench.
3. Using a flat screwdriver, adjust suction level as follows:
   a. Increase suction by turning adjusting screw clockwise in no more than 1/4 increments.
   b. Decrease suction by turning adjusting screw counterclockwise in no more than 1/4 increments.

Vacuum Relief Valve Cleaning

A dirty or clogged Vacuum Relief Valve degrades the **STS™** system suction level. Clean the Vacuum Relief Valve by removing Vacuum Relief Valve Cap and carefully pulling the valve from the Vacuum Connection Assembly. Blow out accumulated solid deposits using clean low pressure compressed air.

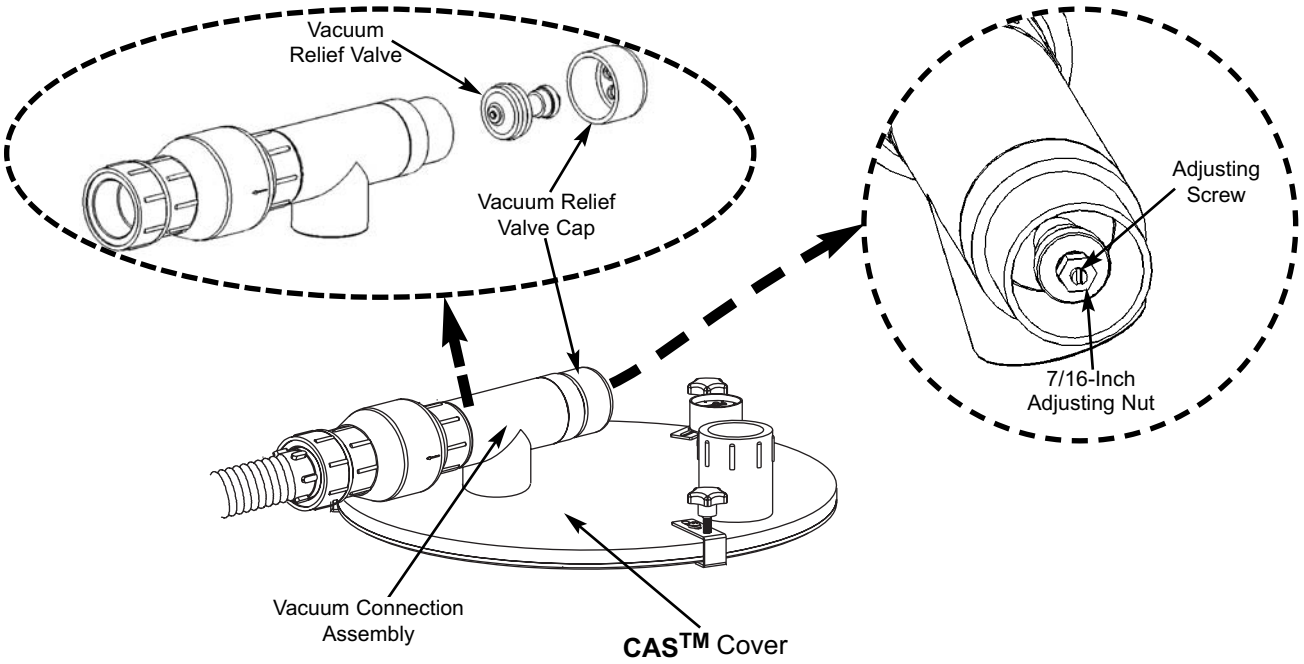


Figure 12. Vacuum Relief Valve Adjustment and Cleaning Detail

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTIONS
1. No suction.	a. Pump not turned on.	a. Turn pump on..
	b. Pump not running.	b. Call your authorized Air Techniques dealer for repair service.
	c. CAS separator tank full.	c. Shut unit “OFF” for 10 seconds then turn back “ON”.
	d. CAS hooked up backwards.	d. Connect hose from STS to swivel tee fitting on CAS.
	e. Drain check valve clogged.	e. Call your authorized Air Techniques dealer for repair service.
	f. Clogged drain.	f. Call your local plumber.
	g. Kinked or collapsed suction hose.	g. Check the suction line from the unit to the separation tank and the separation tank to the operatory line. If clogged, collapsed or kinked call your authorized Air Techniques dealer for repair service.
	h.Separator tank is full and will not drain.	h. Tank must be hooked up to an open drain. If hooked to an open drain and tank won't drain call your authorized Air Techniques dealer for repair service.
2. Poor or low suction	a. Restricted air exhaust.	a. Check air exhaust pipe to make sure it conforms to specifications. Check and clear possible restrictions in exhaust line.
	b. Restricted air suction.	b. Check the suction line from the unit to the separation tank and the separation tank to the operatory line. If clogged , collapsed or kinked call your authorized Air Techniques dealer for repair service.
3. Excessive suction	a. Relief valve set high or stuck closed.	a. Call your authorized Air Techniques dealer for repair service.
	b.Relief valve screen clogged.	b. Call your authorized Air Techniques dealer for repair service.
4. Pump does not run.	a. Site circuit breaker is “OFF”.	a. Turn “ON” the site circuit breaker.
	b. Pump circuit breaker is “OFF”.	b. Turn “ON” the pump circuit breaker.
	c. Low voltage circuit breaker is open.	c. If the white section of the circuit breaker is visible, it is tripped. Flip this section back in to reset breaker.
	d. Low voltage remote switch turned “OFF”, or not connected properly.	d. Make sure remote switch is turned “ON” or if not using remote, switch yellow and orange wires twisted together.
	e. Electrical problem.	e. Call your authorized Air Techniques dealer for repair service.

INSTALLATION ACCESSORY KITS

STS™ Pump Accessory Pack; P/N 54150, Contents -

Part No.	Component Description	Quantity
57253	Barbed Adapter, 1-1/2-Inch MNPT by 1-1/2 Inch	1
56057	2 1/4-Inch Diameter Hose, 17 Inch Long,1 Inch Wide Cuff	1
89324	Hose Clamp, 1-9/16- 2-1/2 Inch Maximum by 1/2 Inch	2
57234	1-1/2-Inch Street Elbow 1-1/2 Inches NPT	1
57169	1.31 to 2.25-Inch Diameter Hose Clamp	1
54340	STS-5 and STS-10 User's Manual	1

CAS™ Tank Accessory Pack; P/N 54120, Contents -

Part No.	Component Description	Quantity
54118	1-1/2 Diameter; Black PVC Hose	10 FT
57169	1.31 to 2.25-Inch Diameter Hose Clamp	5
57253	Barbed Adapter,1-1/2-Inch MNPT X 1-1/2 Inch	4
57234	1-1/2-Inch Street Elbow 1-1/2" NPT	1
31453	1/4-20 X 1-3/4-Inch HEX Head Bolt, Grade 5	4
30610	1/4-Inch Plated Flat Washer	8
30222	1/4-Inch Plated Split Lock Washer	4
30049	1/4-20,Plated HEX Nut	4

STS™ Dual Manifold Accessory Kit; P/N 54400, Contents -

Part No.	Component Description	Quantity
54129	Check Valve; 1-1/4 Inch to 1-1/2 Inch, Modified. Includes: Connector Adapter, 54234 PVC Pipe Length, 54291 Barbed P Connector Adapter, 57253	2
54128	PVC Tee PCONN, 1-1/2 Inch FNPT All Sides: D. Includes: Barbed P Connector Adapter, 57253	1
55222	PVC P Connector Adapter, 1-1/2 Inch MNPT X 1-1/2 Inch SPG	2
54118	1-1/2 Diameter; Black PVC Hose	6 FT
57169	Hose Clamp, 1.31 - 2.25 Inch Diameter.	5
31454	1/4-20 X 2-3/4-Inch,HEX Head Bolt, Grade 5, Plated	4
30958	1/4-Inch Flat Washer,18-8 ST	8
30920	1/4-Inch Split Lock Washer,18-8 ST	4
30049	1/4-20, Plated HEX Nut	4

Accessories/Equipment Options. The following lists the ordering number and description for accessory components available to maintain the **STS™** product family. Contact an authorized Air Techniques' dealer for information.

Part No.	Description
54400	Installation Kit, Dual System
54061	Washout Connector Washer
56200	Vacuum Equalizer
A1048	Guardian for existing CAS separation tank
54360	Pre-Installation Guide, STS and CAS
54199	Kit, Remote Vacuum Relief Valve Assembly

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- ❑ Acclaim® USB Only Intraoral Digital Video Camera System
- ❑ AirStar®
- ❑ A/T 2000® XR
- ❑ Guardian™ Amalgam Collector
- ❑ Peri-Pro®
- ❑ Provecta 70™
- ❑ Rinsendo Root Canal Disinfection System
- ❑ ScanX®
- ❑ STS™
- ❑ VacStar™

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