

Essential Utilities

P O W E R I N G Y O U R P R A C T I C E



Your practice depends
on dental compressed air and vacuum.

AirStar. STS. VacStar.
Steadfast reliability for your peace of mind.

AIR
TECHNIQUES
INC.



Your patient smiles and says "Thank you, Doctor".

These three words are repeated at your practice several times every day. This scene is of vital importance to you and every dentist because it is a scene of trust. Your patient will benefit from the results of your best professional efforts. Much of your work, including the intermediate steps that create the good result, will never be seen. You have earned and safeguard your patient's trust.

Like you, Air Techniques appreciates the importance of trust. We only engineer high-quality components into our products. Components you may never see: oversized bearings, exceptionally rigid motor shafts, ultra-precise machining tolerances. Although never seen, they are the key to the quality, reliability and high-performance Air Techniques' products are known for.

This is why AirStar, STS and VacStar are the reliable choice for tens of thousands

Model A12T A-Series Compressor, manufactured from 1972-1985. Since 1962 Air Techniques has upheld a reputation for quality, reliability and exceptional service which makes us the choice for tens of thousands of dentists.



of dentists. The AirStar Dental Air Compressors produce only 100% oil-free, ultra-dry compressed air to protect your practice. VacStar Dental Vacuum has been delivering high performance and proven reliability since 1986. Our newest addition to our line of essential utilities, the STS Dry Vacuum, uses no water and reduces energy consumption. The STS enables you to practice environmentally responsible dentistry, without compromising the reliability and high performance delivered by wet suction pumps. The Guardian Amalgam Collector and CleanStream System are just two of the fine accessories we offer to complement our exceptional line of Essential Utilities.

Dental compressed air and suction. Your practice depends on these Essential Utilities. Our AirStar, STS and VacStar work when you do. We take your trust seriously and that is why our products are engineered to be markedly superior. Ask for Air Techniques and your trust will be well placed.

Air Techniques understands the environmental issues that impact dentistry today and presents a coherent, systematic approach to help.





 **AirStar®**

**"There's No
Question.
Your Practice
Will Benefit
from 100%
Oil-Free Air"**

Oil and dentistry don't mix.

Compressed air is essential in Dentistry, but air of the wrong quality can have a demonstrably negative impact on patients, staff, procedures and practice operating costs.

Oil lubricated compressors constantly add oil vapor to the compressed air stream. It is impossible to remove all of it. Oil vapor acts much like bad cholesterol in the body; components will become clogged or damaged. Oil vapor can negatively impact health, dental instruments and restorations.

Oil lubricated compressors demand regular maintenance. Like your automobile, they require scheduled oil changes. And since they expel oil the owner must check the oil level and add oil on a regular basis.

An oil-lubricated compressor simply does not produce Dental Quality compressed air. By design, it cannot.

The AirStar oil-free compressor eliminates all of these problems.

How can AirStar protect your practice?

Choose the best. AirStar offers you significant benefits. The Dental Quality compressed air produced by AirStar is ultra-dry, and completely oil free. Because it is not conducive to microbial growth, everyone in the operatory will breathe cleaner, healthier air. A vector for infection is eliminated.

AirStar protects your handpiece investment. There is no damaging oil or water in the air that powers your dynamic instruments. Delicate internal parts are protected.



A I R C O M P R E S S O R S



AirStar 10

AirStar enhances the integrity of restorations. Contemporary restorative materials rely on uncontaminated surfaces to attain maximum bond strength. With AirStar, adhesion is never compromised due to oily film on a prepared surface.

AirStar has a sterling reputation for reliability. AirStar has been trusted for over 30 years in tens of thousands of dental practices. We understand how vital your air compressor is. Look more closely and see the design advantages engineered into AirStar.

Oil-free reliability. The AirStar uses a simple concept to compress air: a piston moving in a cylinder. The piston is fitted with a Teflon® ring that glides in a precision honed brass lined cylinder. Almost immediately, the brass liner becomes infused with Teflon, resulting in near frictionless motion.

Efficient reliability. The AirStar piston and cylinder are configured for maximum efficiency. The long piston stroke pumps more air each cycle and escaping air is minimized by its long skirt. The piston itself is narrow in diameter, reducing bearing load.

Cool running reliability. AirStar has a positively vented crankcase and deeply finned cylinder housing to rapidly dissipate heat, even during periods of peak air demand.

Dry reliability. The patented AirStar drying system allows only ultra-dry air to reach the storage tank. A bed of desiccant beads contained in an exclusive stainless steel drying chamber removes moisture from the compressed air. A dew point of 0°F at 100 psi is typical. As an additional measure of dry reliability, the Regenerative Hygrostatic System monitors the dry air in the storage tank and, when necessary, automatically opens a valve allowing additional dry air from the storage tank to regenerate the desiccant. The result? Ultra-dry air, ultra-reliably.

Sized for your practice.

Five AirStar models accommodate up to 10 air users. Multiple AirStar configurations are also available for Government and Institutional clinics.

Trust AirStar for the Dental Quality compressed air your practice depends on.



AirStar 21 / AirStar 22



AirStar 30



AirStar 50



AirStar 70



"Powerful efficiency, reliability and environmental responsibility. That's the STS Dry Vacuum System."

Suction system choice impacts your practice in the same degree as air compressor selection. The suction system must perform two equally important tasks. First, keep the operating field clear. Second, control the infectious cloud of overspray. Both must be accomplished without traumatic suction levels.

Simple, environmentally responsible and highly efficient, the STS creates powerful vacuum without the need for water or oil. Other pump designs use oil as the sealing fluid. Oil has a litany of serious disadvantages. Oil levels must be checked and maintained. Waste oil must be properly disposed of. Oil can leak or otherwise escape the pump as oil vapor (blow-by). Oil is messy and attracts dirt.

Environmental factors will exert ever-greater influence on your suction system selection. Consider ongoing drought, water use restrictions and the increasing cost of water itself. Communities in which water usage was not metered are awakening to the realities and water bills are adding significantly to practice overhead.

Air Techniques' STS Dental Suction systems release you from the problems of oil, water concerns and energy inefficiency.



D R Y V A C U U M S Y S T E M S

STS is the ideal dry vacuum system for your practice.

STS is excellent for General Dentistry and Oral Surgery practices. Consider these valuable STS attributes: Superb control of infectious aerosols. Completely eliminates water consumption. Totally oil-free. STS can be safely used with all Nitrous Oxide scavenging systems. And it comes with a three-year warranty.

An exclusive, patent-pending heat exchanger reduces installation costs. How? All dry suction pumps create heat, which is transferred to the exhaust. The deeply finned, extruded aluminum heat exchanger lowers the exhaust temperature over 50° F, enabling the use of PVC exhaust piping; much more economical and easier to install than copper.

The STS motor boosts suction levels with an innovative, exclusive two-stage design. Besides significantly enhancing performance, this efficient motor is frugal with utility room space and can be installed in stacked or side-by-side configurations.

Four STS models are sized for practices of up to 10 simultaneous users. Multiple configurations are available for Government and institutional clinics.



Heat Exchanger



Shown Left to Right: STS-3 with 4-Gallon CAS, STS-6 with 4-Gallon CAS, STS-5 with 8-Gallon CAS, and STS-10 with 8-Gallon CAS.



VacStar™

"Since 1986, the VacStar's performance and reliability have made it the choice for thousands of Dentists."

Your dental suction system must perform two equally important tasks. First, keep the operating field clear. Second, control the infectious cloud of overspray. Both must be accomplished without traumatic suction levels that could harm patient tissue.

VacStar has been the reliable vacuum choice for tens of thousands of dentists since 1986. VacStar advantages include compact size, vigorous suction and exceptional service life. The optimized combination of vacuum level and airflow make VacStar appropriate for both general dentistry and oral surgery practices.

Completely oil-free operation – eliminates maintenance problems.

VacStar is a water ring pump. Water is used to create the seal between the spinning impeller and the pump housing. Some other pumps use oil as the sealing fluid. Oil is detrimental to dentistry. Oil is messy, attracts dirt and creates service issues. Oil levels must be checked and maintained. Waste oil requires proper disposal. Oil can leak and oily aerosols are problematic. In sharp contrast, VacStar is 100% oil-free, eliminating all these problems.



Hydromiser



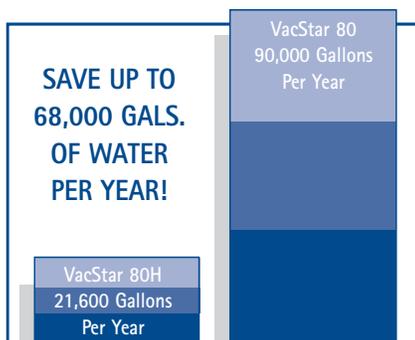
Shown from Left to Right:
VacStar 20/VacStar 40, VacStar 50,
and VacStar 80H with Hydromiser
(All models are available with
Hydromiser.)



V A C U U M S Y S T E M S

High quality components – the key to exceptional performance.

The base and impeller are machined from naval bronze. This corrosion resistant alloy can be worked to very close tolerances. Precision machining is a key to VacStar's performance. Plus, every impeller is dynamically balanced for long running smoothness, reducing motor bearing load and wear. The impeller spins on a massive, 5/8" diameter motor shaft. Incredibly strong, it is machined from type 303 stainless steel bar. The exceptionally rigid shaft resists dynamic flexing, further contributing to high performance and long service. The patented vacuum relief valve ensures suction levels are consistently high and transition is smooth as additional users come online.



VacStar 80H Water Consumption vs. that of VacStar 80, based on 250 8-hr. days per year.

Reduce your water consumption up to 75%.

HydroMiser recycles most of the needed water, saving thousands of gallons of water per year. The patented HydroMiser requires no additional electricity to operate and has no moving parts. HydroMiser is available for all VacStar models.

Convenient space sizing.

Select one of four VacStar models to match your practice size. For space confined installations, the R-1000 Stack Rack and the StarTower enable VacStar to be installed over most AirStar compressors. VacStar is an ideal choice when replacing existing wet pumps and where no changes can be made to the facility piping. All VacStar models have a two-year warranty.



Essential Accessories

"Enhance performance. Protect your health and the environment. Every practice can benefit from these essential accessories."



CleanStream Evacuation System Cleaner (32 pouches; sufficient for 64 applications).

Prolong the life of your vacuum system with CleanStream™ Evacuation System Cleaner.



Dental evacuation lines transport a variety of organic and inorganic debris. If this debris is not removed, suction performance can be noticeably reduced. Every dental suction system should be cleaned regularly. CleanStream is a non-corrosive evacuation system cleaner that reliably removes and prevents debris in the evacuation lines.

CleanStream concentrate is effective and environmentally responsible. Other cleaners, such as those containing unbound chlorine, like bleach, will leach mercury from amalgam. CleanStream solution will not leach mercury and it is non-corrosive and non-acidic. Conveniently packaged in 60-ml pouches, the concentrate is diluted with water making two liters of cleaner, sufficient for two operatories.

Cleaning is most effective when the solution is used in conjunction with the CleanStream Dispenser because the Dispenser aspirates the liquid as a finely atomized mist. This mist is easily carried through the suction system, cleansing the full 360° circumference of the inner tubing walls. Since the aspirated mist is 99% air, there is no added stress on the vacuum pump. Simply fill Dispenser with water, add the concentrate and attach hoses. The Dispenser will automatically aspirate one liter of cleaner. The second liter can be used in the next operatory. CleanStream is safe to use in all types of vacuum systems, as well as systems with an amalgam separator.



CleanStream Starter Kit includes 32 pouches of CleanStream (sufficient for 64 applications) and CleanStream Dispenser System with accessories.

Conserve, collect and comply with the Guardian Amalgam Collector.

Mercury is very toxic and a major source is waste amalgam. Legislation that will dramatically curb mercury discharges into wastewater systems is being adopted by an increasing number of municipalities. Air Techniques Guardian Amalgam Collector solves your mercury problem efficiently and with full compliance. The Guardian exceeds ISO 11143 standards by removing over 99% of the amalgam in wastewater.

Non-electric, with no moving parts, Guardian is very efficient and does not affect suction pressure. The Guardian Amalgam Collector works with all wet and dry suction systems; both new installations and retrofits.

The Guardian Amalgam Collector starter kit includes everything necessary to safely collect amalgam for up to two years, depending on practice size.

In addition to simplicity and reliability, the Guardian Amalgam Collector gives you peace of mind. When the Guardian is returned to the listed recycler, there are no recycling fees and a verifiable record of safe disposal is created.

CleanStream products present a coherent, system approach to solving the environmental issues impacting your practice. Only Air Techniques offers you this turnkey solution.

Boost vacuum pump efficiency, save money and extend pump life with the Vacuum Equalizer.

Larger practices and government clinics often use multiple vacuum pumps. The Vacuum Equalizer matches system capacity with vacuum demand. The microprocessor controlled Vacuum Equalizer constantly monitors demand throughout the workday. As demand increases or decreases, the Vacuum Equalizer will automatically switch pumps on or off as needed. Plus the Vacuum Equalizer will alternate the starting order of the pumps.

The Remote Air Intake Kit supplies your AirStar with clean, fresh air.

Avoid the possibility of cross contamination when the vacuum system and compressor operate in the same room. Universal health and infection control practices indicate that the compressor air supply should be from an isolated source outside the utility room. The Remote Air Intake Kit is available for all AirStar models and makes it easy to quietly bring fresh, clean air to your compressor.



Guardian™ Amalgam Collector with 8-Gallon CAS



Guardian™ Amalgam Collector

Utility Room Configurations

We have the products to match your requirements. Choose from a full range of Air Techniques compressors, vacuums and accessories. Shown are a few of the many possible configurations.

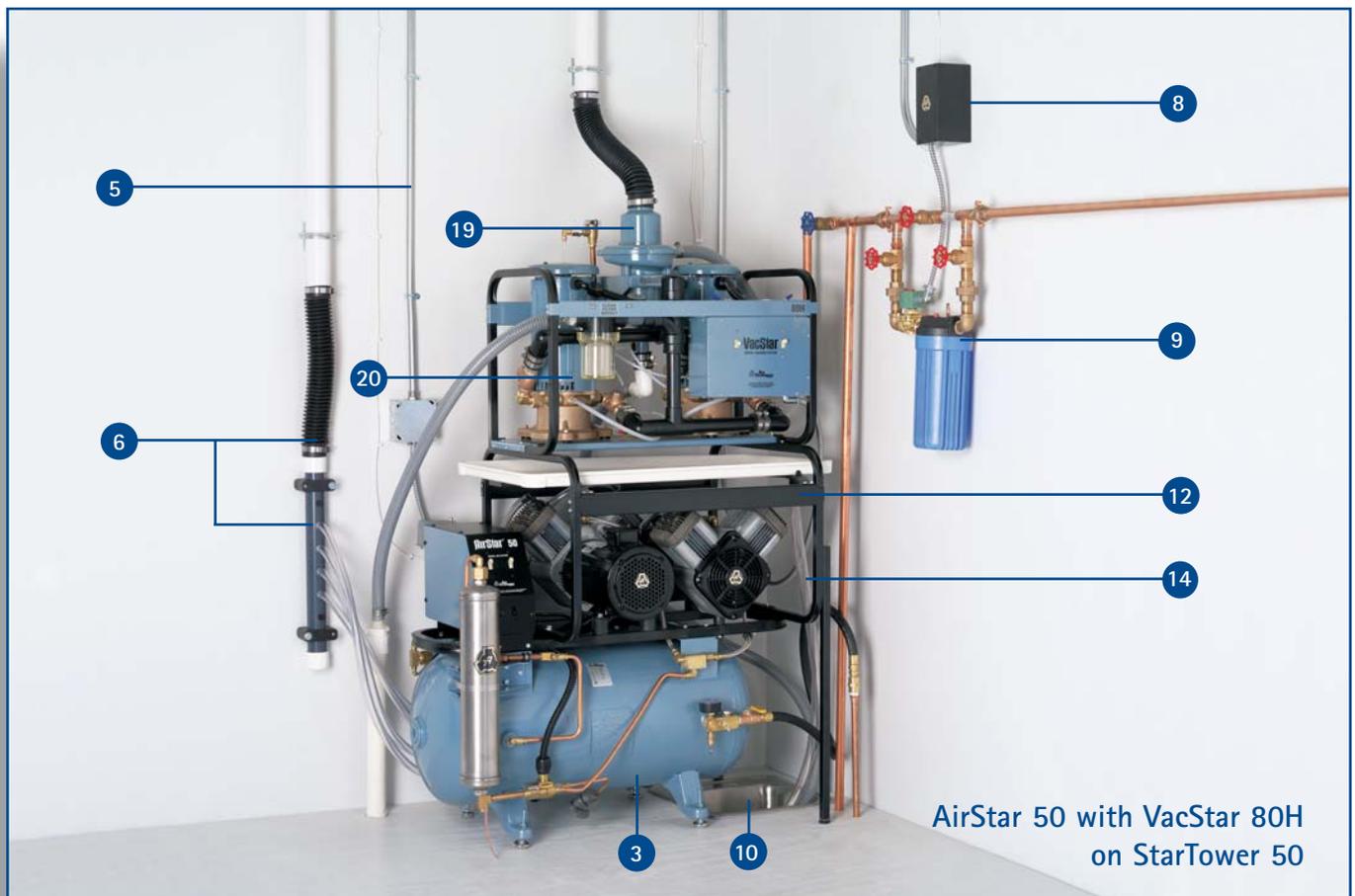
Organize and save utility room space.

The R-1000 Stack Rack allows the mounting of any VacStar above all AirStar models except the AirStar 70. Two models of StarTower allow mounting of a twin VacStar over an AirStar 22, AirStar 30 or AirStar 50.

Parts Identification

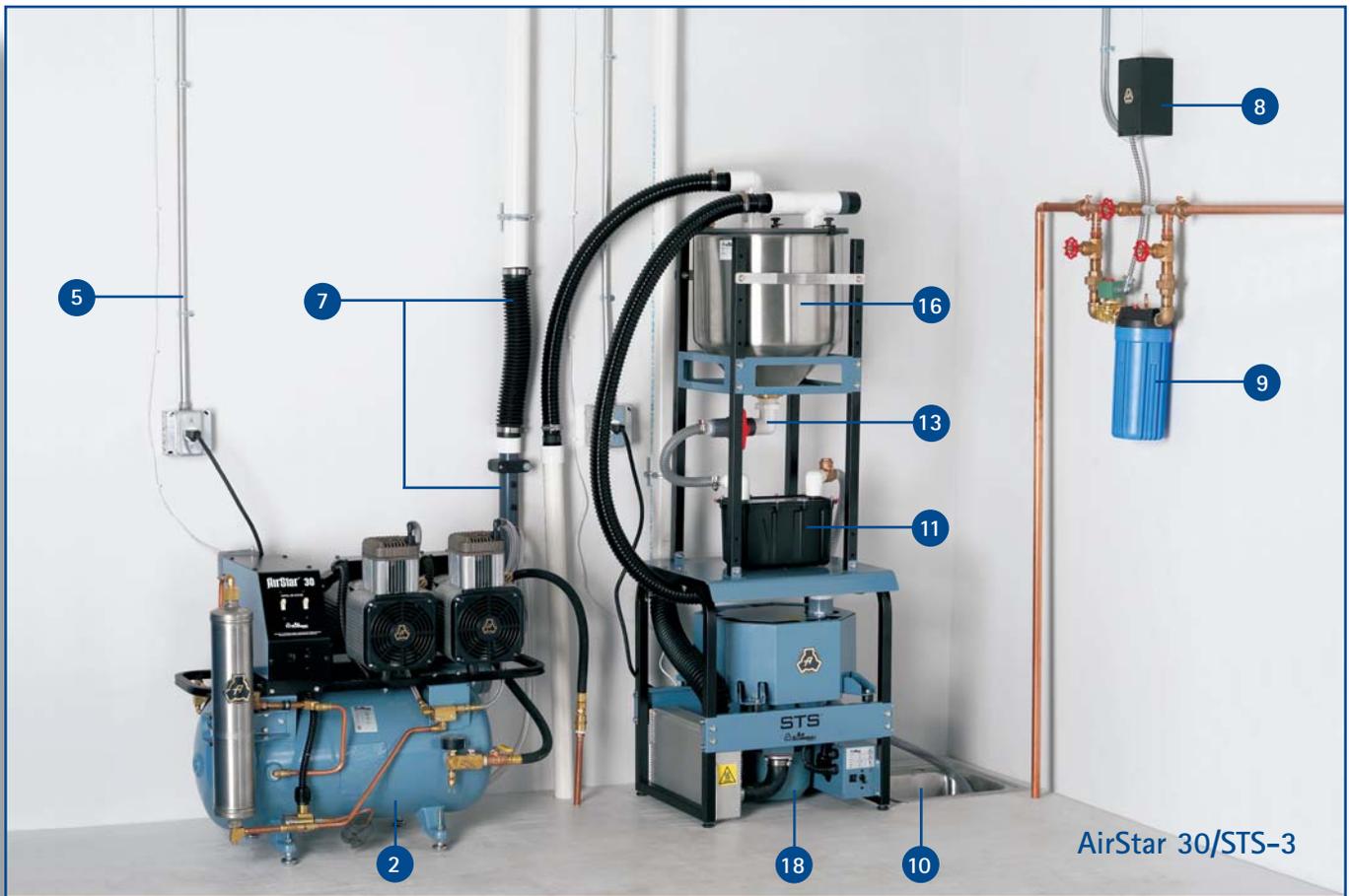
1. AirStar 50C w/ Sound Cover
2. AirStar 30
3. AirStar 50
4. 208/230 Volts AC power line connection box
5. 208/230 V AC power line with Nema 15R receptacle
6. Remote Air Intake Kit P/N 85493
7. Remote Air Intake Kit P/N 85963
8. Water Control Transformer P/N 53150
9. Remote Water Control Valve with Filter (P/N 53020) - 3/4" Pipe 24 Volt solenoid as shown
10. Floor Sink (Drain); Minimum Size 1 1/2"
11. Guardian Amalgam Collector
12. StarTower 50/80 Stack Rack P/N 86160
13. Drain Line for Amalgam Collector 3/4"
14. StarTower Drippan drain 3/4" clear tubing x 6 feet included with StarTower
15. 8-gallon CAS Separator Tank
16. 4-gallon CAS Separator Tank
17. STS-5 Dry Vacuum System
18. STS-3 Dry Vacuum System
19. Hydromiser. Can also be wall mounted using P/N 55087
20. VacStar 80H with optional Hydromiser

Full installation specs are available in our pre-installation and operator manuals. For additional utility room configurations please visit our website at www.airtechniques.com





AirStar 50/STS-5



AirStar 30/STS-3

EQUIPMENT SIZING GUIDE

Models

AirStar Recommended Number of Simultaneous Users

10	1 - 2
21	2 - 3
22	2 - 3
30	3 - 4
50	5 - 7
70	7 - 10

VacStar Recommended Number of Simultaneous Users (HVE / SE)

20	2 / 0	1 / 1	0 / 4	
40	3 / 0	2 / 2	1 / 4	0 / 6

Apply the following if both pumps are running together. If running one pump, use the above figures for VacStar 20 or 40, respectively.

50 or 50H	4 / 0	3 / 2	2 / 4	1 / 5
80 or 80H	7 / 0	6 / 1	5 / 3	4 / 4
	3 / 6	2 / 8	1 / 10	0 / 13

STS Recommended Number of Simultaneous Users (HVE / SE)

STS-3	3 / 0	2 / 2	1 / 4	0 / 6			
STS-5	5 / 0	4 / 2	3 / 4	2 / 6	1 / 8	0 / 10	
STS-6	6 / 0	5 / 2	4 / 4	3 / 6	2 / 8	1 / 10	0 / 12
STS-10	10 / 0	9 / 2	8 / 4	7 / 6	8 / 8	5 / 10	4 / 12

ACCESSORIES IDENTIFICATION

CleanStream Evacuation System Cleaner

Part Number	Description
57640	CleanStream Cleaner (1 box of 32 pouches)
57665	CleanStream Dispenser System (includes Dispenser and all fittings)
57660	CleanStream Starter Kit (includes 32 pouches of CleanStream and Dispenser System with accessories)

Guardian Amalgam Collector

Part Number	Description
A1048	Guardian (for use with non Air Techniques separator tanks)
A1071	Guardian (with 4-gallon CAS) for use with a dry vacuum pump
A1049	Guardian (with 8-gallon CAS) for use with a dry vacuum pump
A1069	Guardian (with 4-gallon CAS) for use with a liquid ring vacuum pump
A1120	Guardian (with 8-gallon CAS) for use with a liquid ring vacuum pump
A1010	Amalgam Collector Container Replacement Kit

Please visit our web site www.airtechniques.com for more information on available Vacuum/Amalgam packages,

SPECIFICATIONS

AirStar

Model	Part Number	Voltage	Full Load Amps	Dimensions (HXWXD) (In Parentheses – Height with Sound Reducing Cover)	Weight
10	AS10	115	8	27 x 23 x 18 (31)"	160 lbs.
21	AS21	115	15	28 x 33 x 21 (32)"	210 lbs.
22	AS22	208/230	8	28 x 33 x 21 (32)"	210 lbs.
30	AS30	208/230	8	29 x 33 x 21 (32)"	255 lbs.
50	AS50	208/230	16	31 x 38 x 24 (32)"	320 lbs.
70	AS70	208/230	24	33 x 45 x 26"	430 lbs.

VacStar

Model	Part Number	Voltage	Full Load Amps	Water Flow/ Min. Per Pump	Dimensions (HXWXD)	Weight
20	VS20	115/230	16/8	.50	14 x 11 x 11"	68 lbs.
40	VS40	230	13.4	.75	17 x 11 x 11"	85 lbs.
50	VS50	230	16	.50	22 x 28 x 16"	160 lbs.
50H	VS50H	230	16	.12	22 x 28 x 16"	170 lbs.
80	VS80	230	26.8	.75	22 x 28 x 16"	200 lbs.
80H	VS80H	230	26.8	.18	25 x 28 x 16"	210 lbs.

STS

Model	Part Number	Voltage	Factory Preset Vacuum Level Hg	Dimensions (HXWXD)	Weight
STS-3	54600	200/250 AC, 60 Hz	10" Hg	20 1/2 x 16 3/4 x 23 1/2"	110 lbs.
STS-5	54100	200/250 AC, 60 Hz	10" Hg	24 1/4 x 16 3/4 x 23 1/2"	125 lbs.
STS-6	54910	200/250 AC, 60 Hz	10" Hg	20 1/2 x 16 3/4 x 46 1/2"	220 lbs.
STS-10	54700	200/250 AC, 60 Hz	10" Hg	24 1/4 x 16 3/4 x 46 1/2"	250 lbs.

CAS

Model	Part Number	Dimensions (HXWXD)	Weight
4-Gallon	54800	22 5/8 x 18 3/4 x 39 3/4"	46 lbs.
8-Gallon	54300	22 5/8 x 18 3/4 x 46"	48 lbs.

Warranties

AirStar and VacStar are warranted to be free from defects in materials and workmanship from the date of installation for a period of 24 months.

STS and CAS are warranted to be free from defects in material and workmanship for a period of 36 months.

Note: For government inquiries contact Air Techniques directly.

Essential Utilities

POWERING YOUR PRACTICE



Air Compressors



Vacuum Systems
and Amalgam
Separation



Intraoral X-Ray



X-Ray Processors



Digital Imaging



Intraoral Cameras



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