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UTILITY STACK MINI

Part Number: 56600

Assembly & Installation Instructions

Important: Make sure that the correct Utility Rack is used for the corresponding sized utility systems being installed. Air Techniques also recommends the following:

- Install the vacuum pumps (VacStar or Mojave) closest to the incoming vacuum line (from the operatory) in order to decrease the workload of the vacuum pump.
- When using sub-floor plumbing, install the vacuum line below the compressor line.
- Install the vacuum line over the compressor line when using overhead plumbing.

Introduction. This document provides the instructions necessary to assembly the Utility Stack Mini, P/N 56600 used to consolidate the installation of utility systems manufactured by Air Techniques, Inc. Make sure to read this entire document before proceeding.

Accessory Kits. Contact your dealer for optional and mandatory accessory kits available for use with the Utility Stack Mini. The kits currently available for separate purchased include:

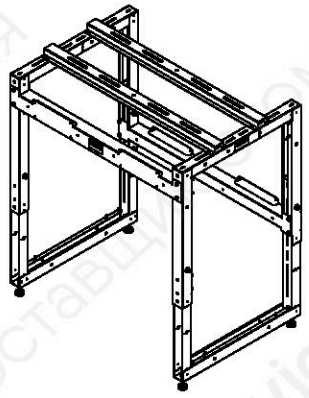
Optional Accessory Kits -

Drip Tray Kit, P/N 56635: provides protection to equipment installed under the top rails.

Wall Mount Kit, P/N 54145: secures the Utility Stack to an installation site wall.

Mandatory Accessory Kit -

Top Shelf Mount Kit, P/N 56645: must be used for VacStar 20 & 40 Pump Installations as needed.

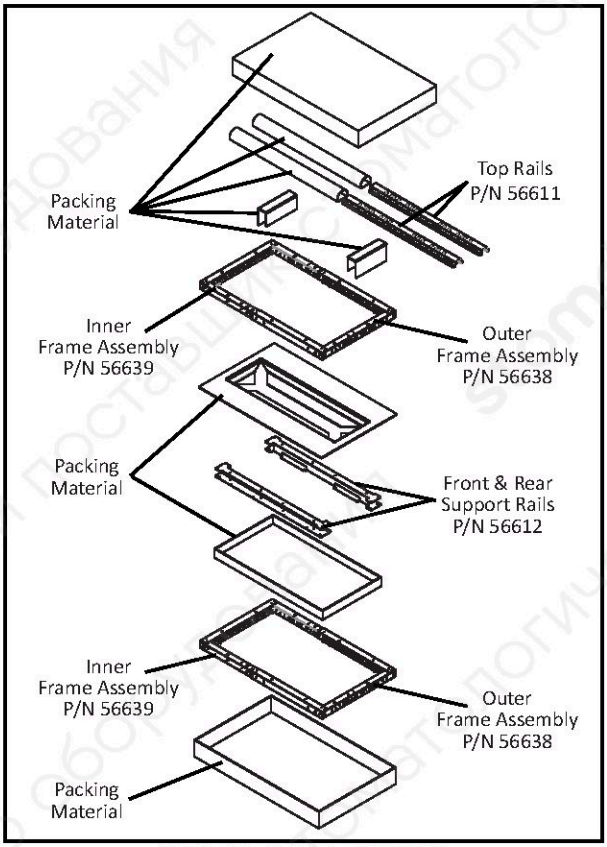


Utility Stack Mini, P/N 56600

Procedure Summary. The assemble tasks included are summarized below:

- ❑ **Included System Components.** Lists the supplied components comprising the Utility Stack .
- ❑ **Assembling Inner and Outer Frame Assemblies, P/N 56638 & 56639.** Provides the instructions to assemble the two pairs of Inner and Outer Frame assemblies and set the height of the rack.
- ❑ **Assembling Front and Rear Support Rails P/N 56612.** Provides instructions to install the Front and Rear Support Rails.
- ❑ **Assembling Top Rails P/N 56611.** Provides instructions to install the Top Rails in the locations necessary for the installation of corresponding utility system.
- ❑ **Securing of Associated Utility System.** Provides instructions to install the associated utility system onto the Top Rails of the Utility Stack.

Included System Components. The Utility Stack Mini consists of the indicated assemblies and installation hardware kits listed below. Verify that all listed items were received. If any item is missing, notify your dealer.



Utility Stack Mini, P/N 56600
Supplied Components & Packaging

Utility Stack Mini, Part Number 56600		
Part No.	**Description**	**Qty**
56611	Top Rails	2
56612	Front & Rear Support Rails	2
56638	Outer Frame Assembly	2
56639	Inner Frame Assembly	2
56615	Installation Hardware Kit	1
55487	Leveling Foot Installation Kit	1

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Installation Hardware Kit, Part Number 56615				
Use Code (See Note)	**Part No.**	**Part**	**Description**	**Quantity**
A	31536		Bolt, ⅜-16 X 2-¾ inch	4
I	30007		Bolt, ⅜-16 X 2 inch	4
A & I	30803		Bolt, ¼-20 X ½ inch	20
A	31854		Cap Plug, Ø 0.234 X ½ inch	16
A	30128		Nut, ⅜-16	4
A & I	30049		Nut, ¼-20	20
I	84106		Rubber Washer, $^{7}/_{16}$ inch	4
A & I	30164		Washer, ⅜ inch	16
I	30610		Washer, ¼ inch	4
A	30324		Lock Washer, ⅜ inch	8
A & I	30222		Lock Washer, ¼ inch	28

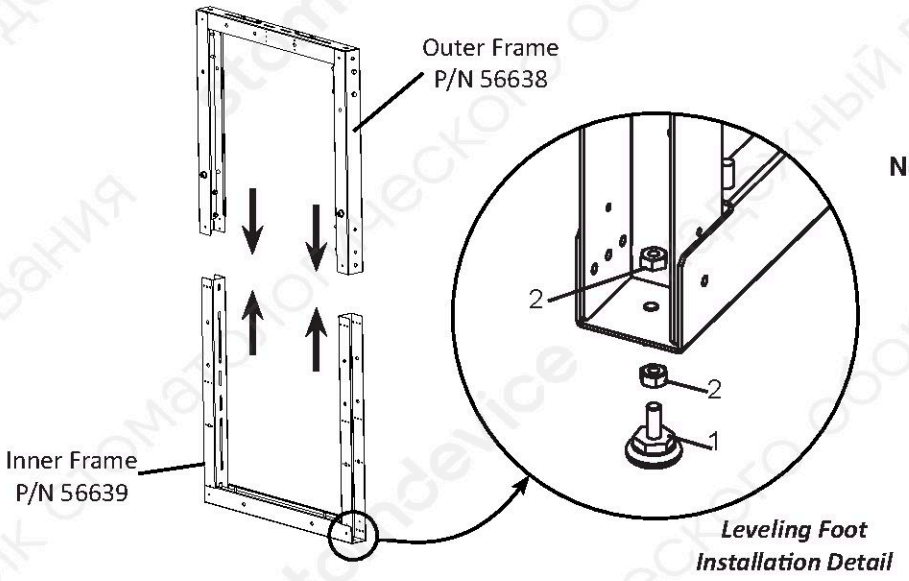
Use Code A: Identifies fastening hardware used to assemble the Utility Stack MINI for use.

Use Code I: Identifies fastening hardware used to install applicable utility system onto the assembled Utility Stack MINI.

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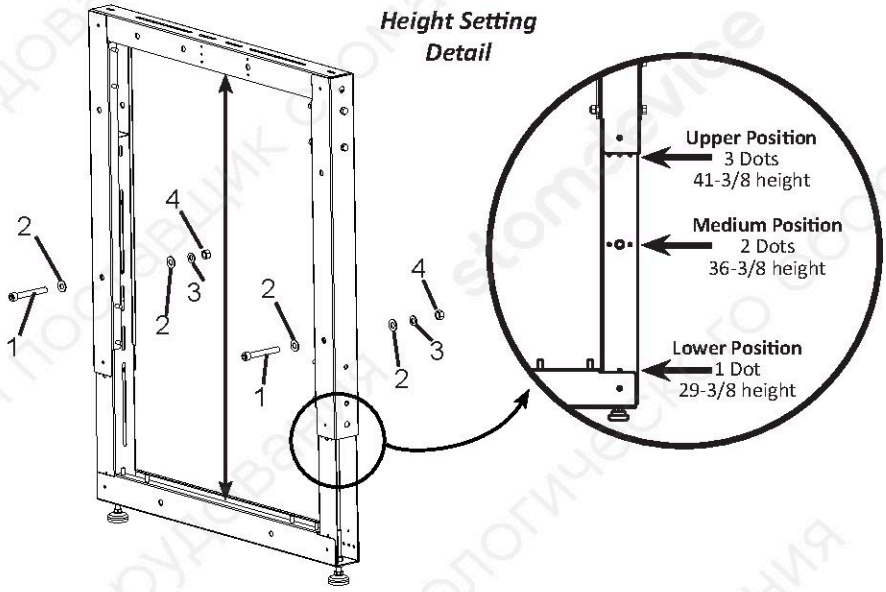
Assembling Inner and Outer Frame Assemblies, P/N 56638 & 56639. Assemble the two pairs of Inner and Outer Frame Assemblies to form the left and right side supports by performing the following steps.

1. Slide the Inner Frame into the Outer Frame and Install Leveling Feet onto each side of the Inner Frame.
2. Refer to Table 1 to set the height of the top shelf for the equipment configuration being installed. This is done by sliding the edges of Outer Frame to one of the three height position settings on the Inner Frame marked by 1, 2 or 3 dots.
3. Secure the setting with the supplied height locking hardware listed below.



Note: Leveling feet add a minimum of 1 inch when set in the lowest position and a maximum of 2 inches at the highest setting.

Leveling Foot Installation Hardware			
Item	**Description**	**Part No.**	**Quantity**
1	Leveling Foot	85473	4
2	Nut, ⅜-16	30128	8



Important:
Refer to Table 1 and 2 for the height level of the top shelf required for the utility equipment configuration to be installed.

Height Locking Hardware (both sides)			
Item	**Description**	**Part No.**	**Quantity**
1	Bolt, 2-⅜ inch	31536	2
2	Washer, ⅜ inch	30164	4
3	Lock Washer, ⅜ inch	30324	2
4	Nut, ⅜-16	30128	2

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Utility Stack MINI						
Shelf Height Position		AirStar	AirStar NEO	VacStar	VacStar NEO	Mojave
Lower	1 Dot - 30” 3/8			VS20 VS40 VS50	VS20NEO VS40NEO	LT3 V3 V5 V7
Middle	2 Dots - 37” 3/8	AS10 AS10C AS21 AS21C AS22 AS22C AS30 AS30C AS40 AS40C	AS10 NEO AS10NEOC AS21NEO AS21NEOC AS22NEO AS22NEOC	VS40H VS50H		MT10
Upper	3 Dots - 41” 3/8		AS40NEO AS50NEO			

Notes:

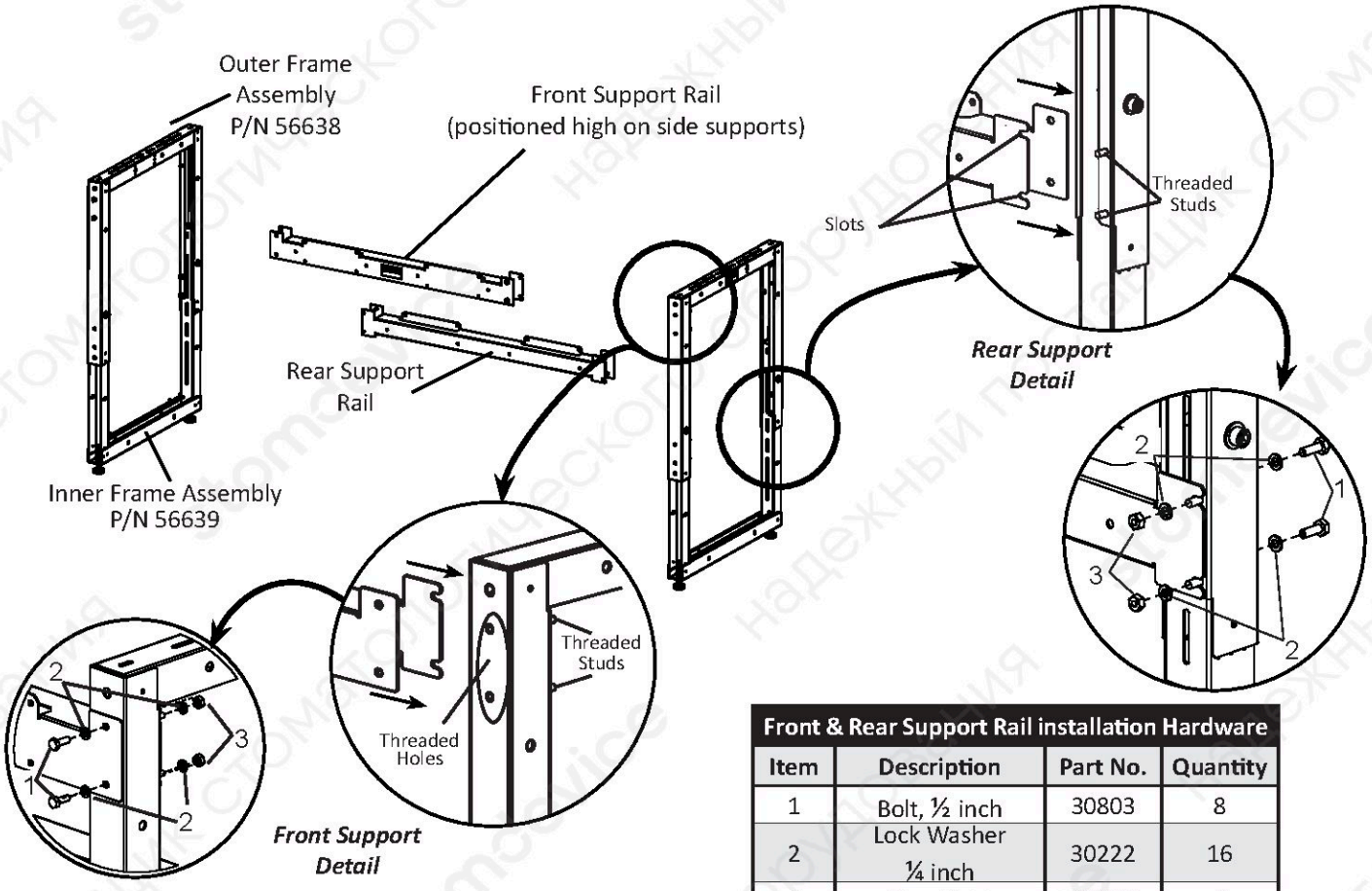
1. Mojave V3, V5, 2V3 & 2V5 systems are always installed on the upper shelf.
2. Mojave CT20 tanks are never installed on a Utility Stack.
3. All height levels are approximate and are based on setting the leveling feet in the lowest position.
4. The height level will increase by approximately one (1) additional inch when the leveling feet are set in the Highest position.
5. Use drip tray only when VacStar is installed on the top shelf.

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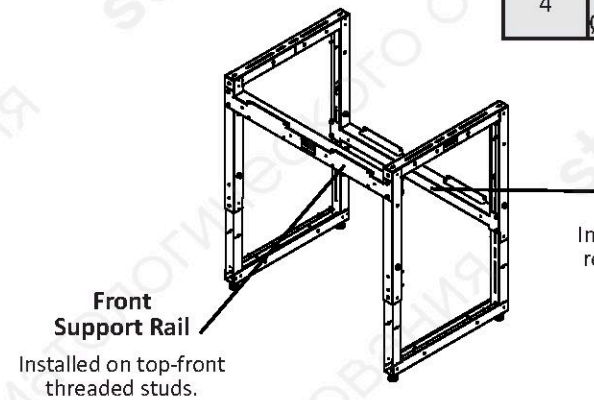
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Installation of Front and Rear Support Rails P/N 56612. As shown by Detail A below, each support rail is designed to attach to both sides of the associated side supports of the rack. Slots on one side slide into threaded studs and are secured by nuts while the threaded holes on the other side are secured with bolts. Install the Front and Rear Support Rails between the left and right side supports formed by the two pairs of assembled Inner and Outer Frame assemblies by performing the following steps.

1. Align both ends of the support rail to be installed with the threaded studs and slide the rail into the studs.
2. Loosely install the supplied lock washers (P/N 30222) and nuts (P/N 30049) to the threaded studs at both ends
3. Secure each support rail by installing the bolts (P/N 30803) and lock washers (P/N 30222) into the two threaded holes on both ends.
4. Tighten the nuts (P/N 30049) on the threaded stud side at both ends.
5. Install the 16 supplied Cap Plugs (P/N 31854, not shown) onto all exposed unused threaded studs



Front & Rear Support Rail installation Hardware			
Item	Description	Part No.	Quantity
1	Bolt, ½ inch	30803	8
2	Lock Washer ¼ inch	30222	16
3	Nut, ¼-20	30049	8
4	Cap Plug, Ø 0.234 X ½ inch	31854	16



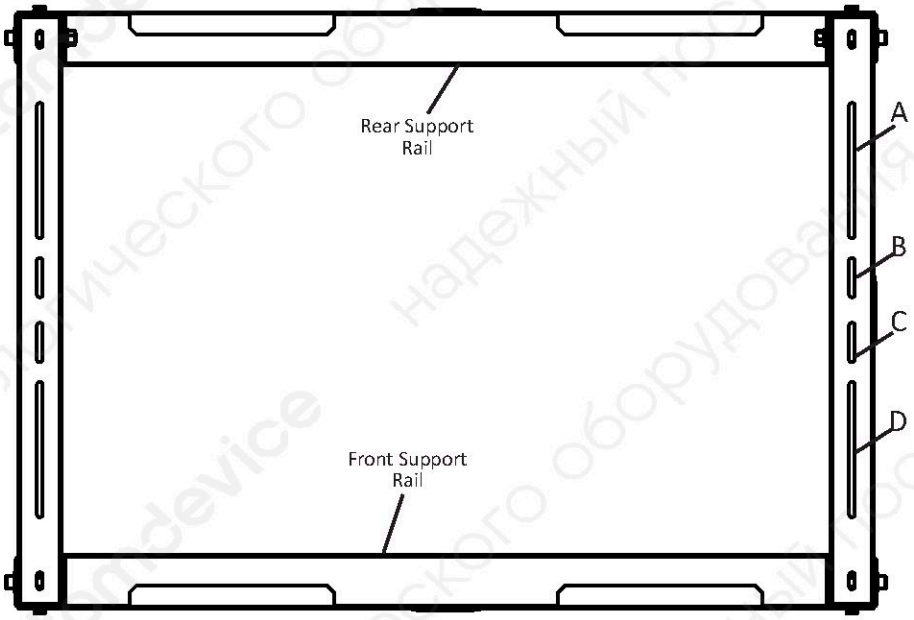
Correct Support Rail Assembly

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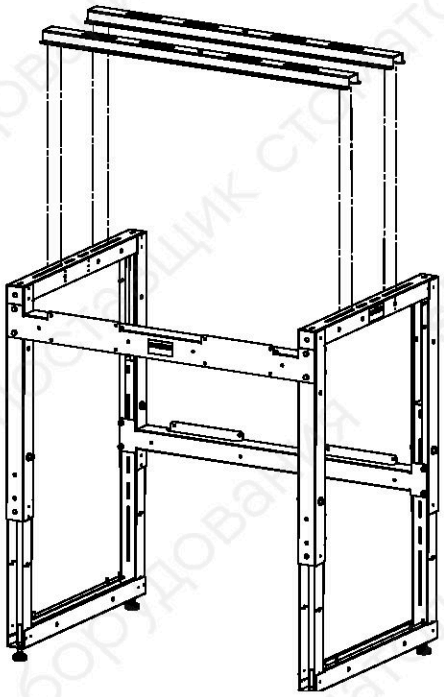
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Installation of Top Rails P/N 56611. Refer to the drawings below and install the Top Rails in the location shown for the applicable utility system to be installed onto the stack rack . Note that the position of each Top Rail is dependant on the utility system to be installed. Make sure to locate each rail as shown. Secure the rails with the supplied attaching hardware listed below by performing the following steps.

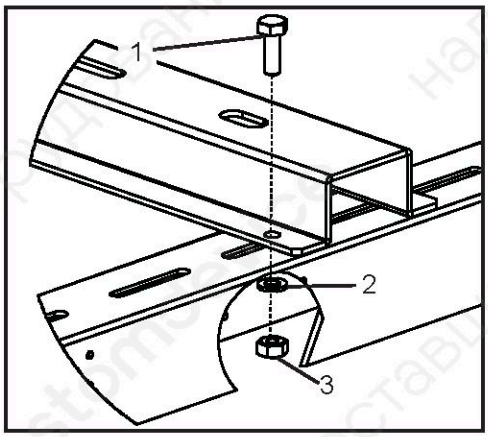
1. Align the holes of both ends of the top rail to be installed with the holes of the left and right side supports making sure to locate each rail as shown (correctly numbered hole and/or slot locations) for the utility system installation.
2. Install two bolts (P/N 30803) into the holes of both ends of the top rail.
3. Secure each support rail by installing the supplied lock washers (P/N 30222) and nuts (P/N 30049) to the bolts as shown below.



Hole and Slot Locations for Top Rail Installation



Top Rail Installation



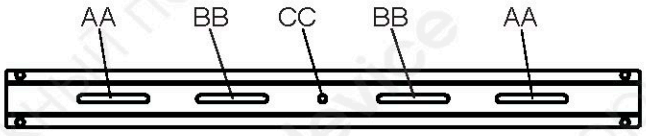
Typical Attaching Hardware Installation Order

Top Rails installation Hardware			
Item	**Description**	**Part No.**	**Quantity**
1	Bolt, ½ inch	30803	8
2	Lock Washer, ¼ inch	30222	8
3	Nut, ¼-20	30049	8

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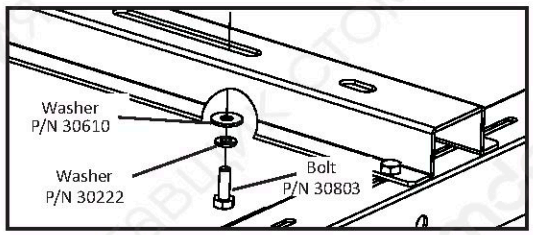
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Installation of Utility System Being Installed. Refer to the drawings below and install the associated utility system onto the Top Rails of the stack rack unit. Note that the specific holes used on each Top Rail for system installation is dependant on the utility system being installed. Make sure to use corresponding rail holes as shown for applicable system. Secure with the required attaching hardware listed for each utility system installation.



Stack Rack Front

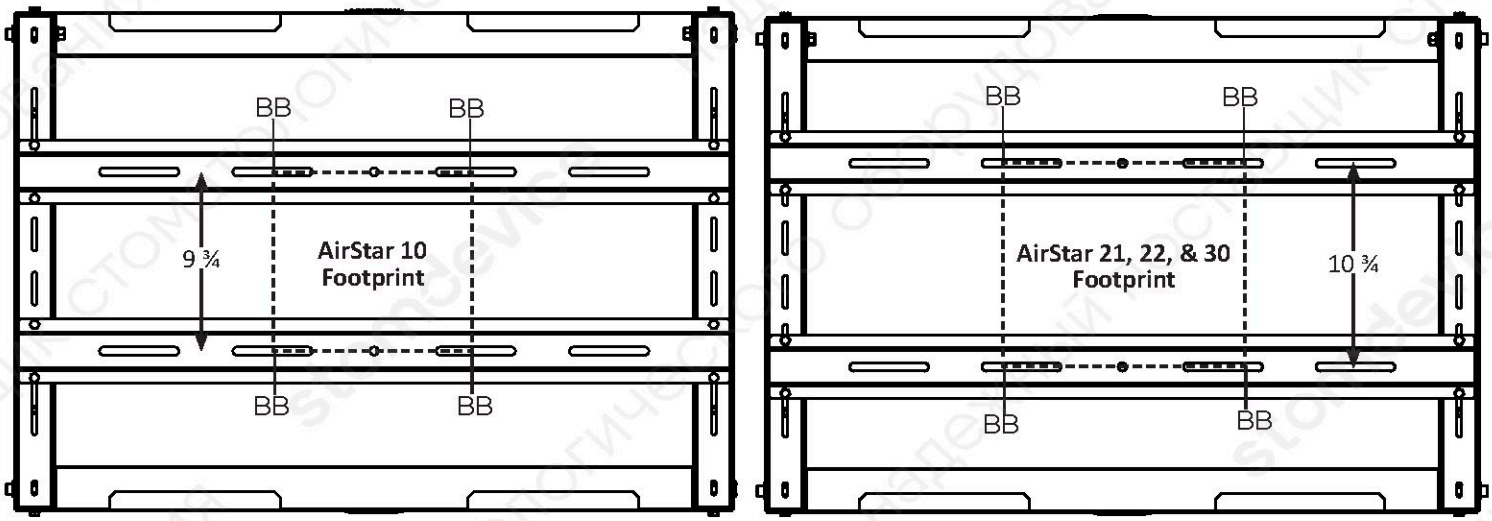
Top Rail Hole Locations for Various Utility System Installations



Typical Attaching Hardware Installation Order Using Multiple Washers

Important: Make sure that each rail located as shown. The position of each Top Rail is dependant on the utility system to be installed.

AirStar Installation Procedure. Refer to the drawings below and install the AirStar unit on the properly spaced Top Rails of the stack rack.



AirStar Compressor Installation Position Views

Important: Make sure to save all hardware securing the AirStar to the shipping pallet. This attaching hardware is reused to install the AirStar to the stack rack.

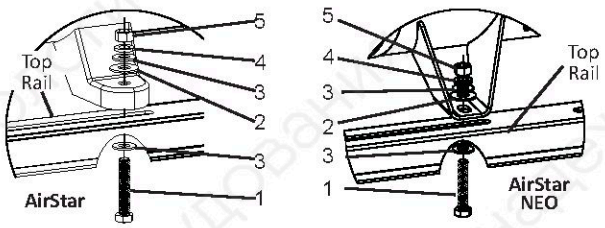
AirStar Installation and Attaching Hardware

AirStar compressors are mounted on top of the Top Rails of the stack rack at corresponding locations as shown by AirStar Compressor Installation Position Views above. The compressor is installed reusing the attaching hardware used to secure the AirStar to the shipping pallet.

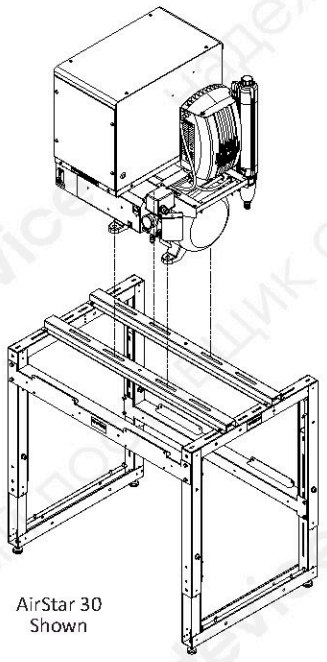
Install the AirStar compressor by performing the following steps.

1. Remove the AirStar from the shipping pallet by removing the hardware securing each foot to the shipping pallet. Save the hardware for reuse.
2. Orient the AirStar to be installed with its front facing forward
3. Refer to Detail A and align the four holes of the Top Rails with the holes of the feet of the AirStar to be installed.
4. Refer to Detail B and install bolt (item 1) from under the top rail and through the foot hole.
5. Secure each foot of the compressor to the rails by installing rubber washer (item 2), washer (item 3) lock washer (item 4) and nuts (item 5) to the head bolts. Tighten all nuts.

AirStar Installation Hardware			
Item	Description	Part No.	Qty
1	Bolt, 2 inch	31742	4
2	Rubber Washer,	84106	4
3	Washer, ⅜ inch	30164	4
4	Lock Washer, ⅜ inch	30324	4
5	Nut, ⅜-16	30128	4



Detail B
Typical AirStar & AirStar NEO Hardware Installation on Top Position of Utility Stack

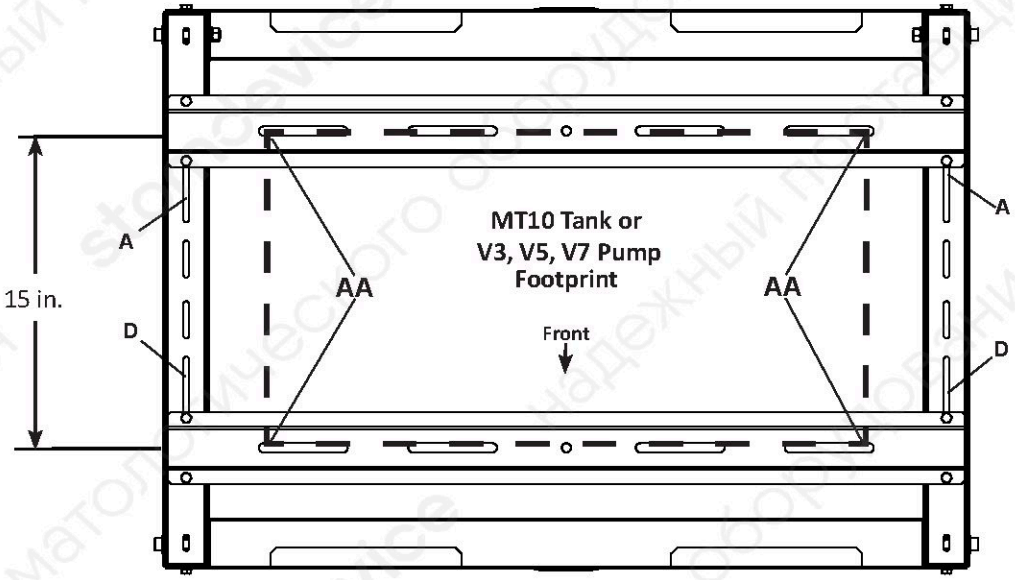


Detail A Typical AirStar Installation on Top Position of Stack Rack

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Important: Make sure that each rail is located as shown. The position of each Top Rail depends on the utility system to be installed.

Mojave Securing Procedure. Install the V3, V5 or V7 Pump or MT10 Tank units on the properly spaced Top Rails of the Utility Stack.



Mojave V3, V5, V7 Pump or MT10 Tank Position View

V3, V5, V7 Pump or MT10 Tank Securing Location

Mojave V3 / V5 / V7 pumps and the MT10 tank are mounted onto the Top Rails at corresponding locations shown above.

Securing Hardware

Both the pump and tank frames are secured to the front rail using the hardware supplied with the pump Accessory Pack, P/N H5170. The hardware supplied with the Installation Hardware Kit, P/N 56615, (See page 2 for list.). is used to secure either frame to the rear rail.

V3, V5 or V7 Pump Securing Procedure. Install the Mojave pump as follows.

1. Remove the four leveling feet from the pump frame.
2. Orient the pump to be installed with the unit facing forward.
3. Align the left and right front corner threaded holes of the pump frame with holes AA of the front top rail as shown above and to the right.
4. Install hex head bolts, flat washers and lock washers supplied with the pump into the two front corner threaded holes of the pump frame.
5. Install hex head bolts, flat washers, lock washers and nuts supplied with Kit, P/N 56615 into the pump frame holes aligned with the rear rail screw holes AA.
6. Secure the pump to the rails by tightening the two front bolts and two rear nuts.

MT10 Tank Securing Procedure. Secure MT10 tank as follows:

1. Remove the four leveling feet from the tank frame.
2. Orient the tank to be installed with the unit facing forward.
3. Align the left and right front corner threaded holes of the tank frame with holes AA of the Front Top Rail as shown above and to the right.
4. Install bolts, washers and lock washers supplied with the tank into the two front corner threaded holes of the tank frame.
5. Install bolts, washers, lock washers and nuts supplied with Kit, P/N 56615 into the tank frame holes aligned with the rear rail screw holes AA.
6. Secure the tank to the rails by tightening the two front bolts and two rear nuts.

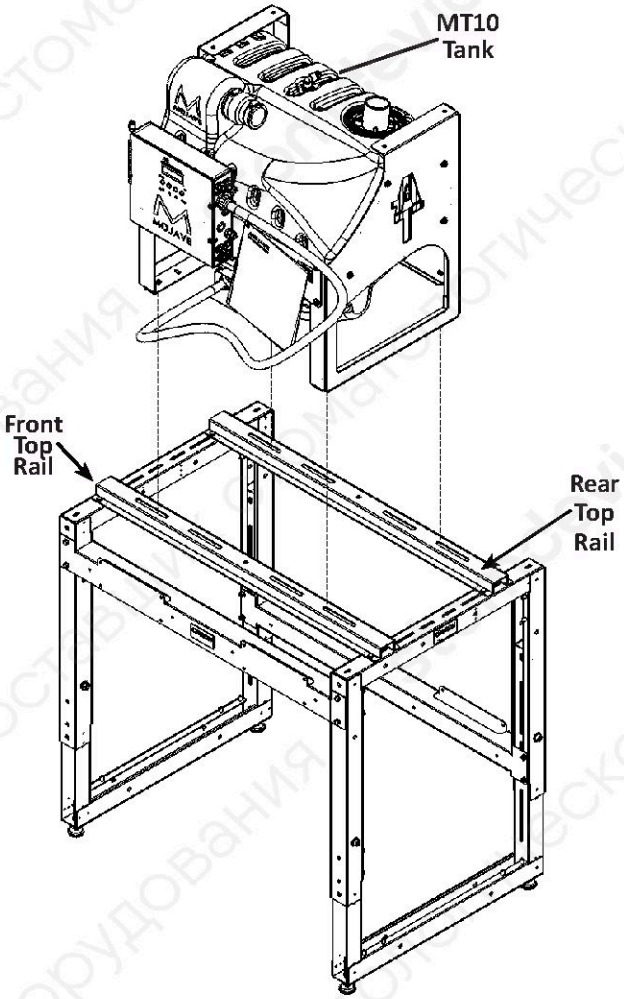
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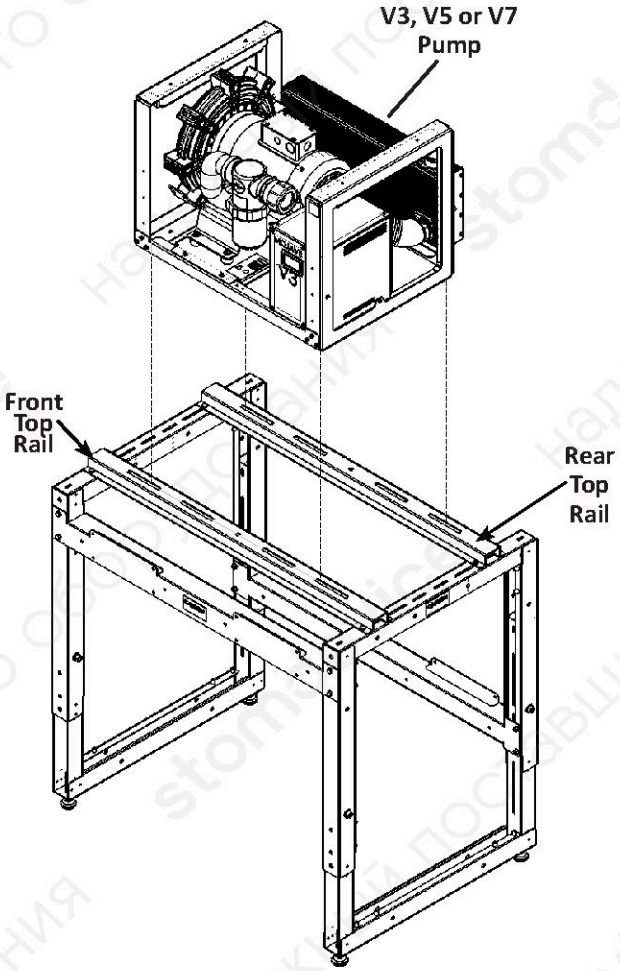
Front Rail Securing Hardware (Use with pump and tank frame front threaded screw holes.)		
Description	**Part No.**	**Quantity**
¼-20 X ½ inch Bolt	30914	4
¼ inch Washer	30958	4
¼ inch Lock Washer	30920	4

Supplied with pump Accessory Pack, P/N H5170

Rear Rail Securing Hardware (Use with pump and tank frame rear screw holes.)		
Description	**Part No.**	**Quantity**
¼-20 X ¾ inch Hex Head Bolt	30803	4
¼ inch Flat Washer	30610	4
¼ inch Split Lock Washer	30222	4

Supplied with Installation Hardware Kit, P/N 56615



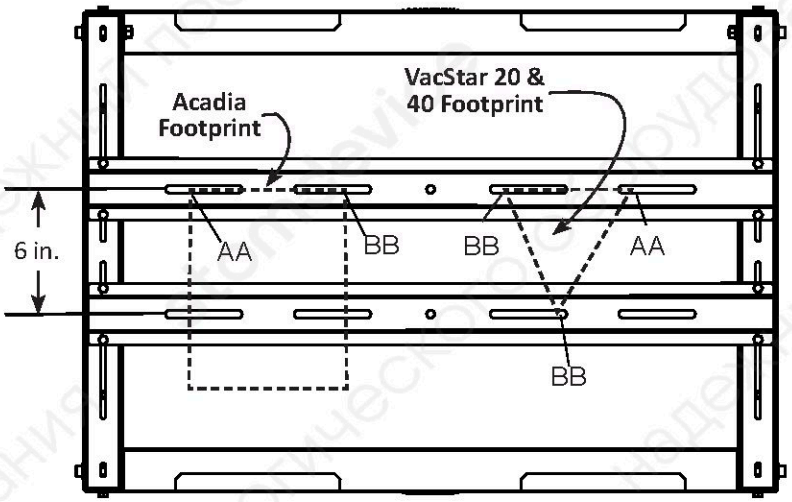


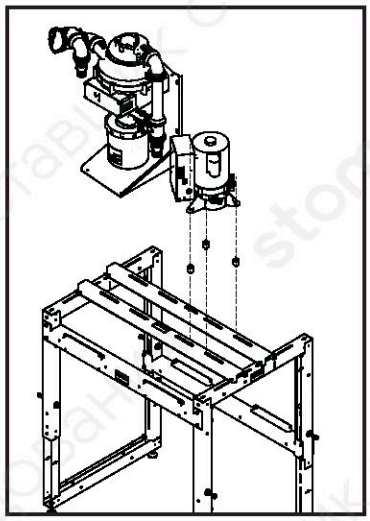
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Important: Make sure that each rail located as shown. The position of each Top Rail is dependant on the utility system to be installed.

VacStar 20 & 40 Installation Procedure. Refer to the drawings below and install the VacStar and Acadia units on the properly spaced Top Rails of the stack rack.





Important: VacStar 20/40 Top Shelf Mount Kit (P/N 56645) must be used on all VacStar 20 & 40 Pump Installations.

VacStar 20 & 40 Acadia and Installation Position Views

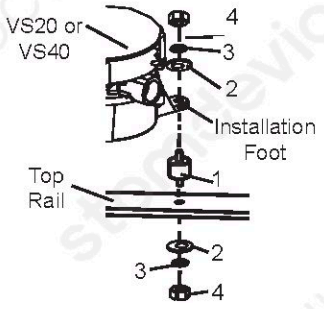
VacStar 20 & 40 Installation and Attaching Hardware

The VacStar 20/40 Top Shelf Mount Kit (P/N 56645), purchased separately, must be used to secure the VacStar pump onto the Top Rails of the stack rack. Install VacStar 20 & 40 units by performing the following steps.

1. Refer to Detail A and install the three vibration mounts (item 1) into the holes (KK, LL & PP) of the Top Rails.
2. Secure the vibration mounts to the Top Rails by installing washers (item 2), lock washers (item 3) and nuts (item 4) to each installed mount. Tighten all nuts.
3. Carefully align the holes of the VacStar installation feet with the threaded studs of the vibration mounts and install the VacStar onto the Top Rails making sure that the electrical box is facing the left front as shown by the illustration above.
4. Install a washer (item 2), lock washer (item 3) and nut (item 4) to each threaded stud of the vibration mount installed at the VacStar installation feet. Tighten all nuts.

VacStar 20/40 Top Shelf Mount Kit, P/N 56645			
Item	**Description**	**Part No.**	**Qty**
1	Vibration Mount	55907	3
2	Washer	30958	6
3	Lock Washer	30920	6
4	Nut	30049	6

Important: The Top Shelf Mount Kit must be used on VS20 and VS40 Installations.

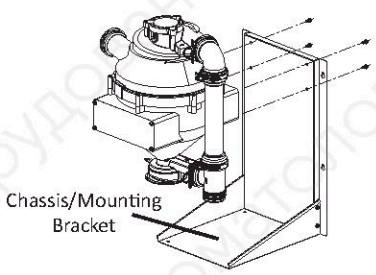


Detail A Typical Top Shelf Mount Kit Hardware Installation Order

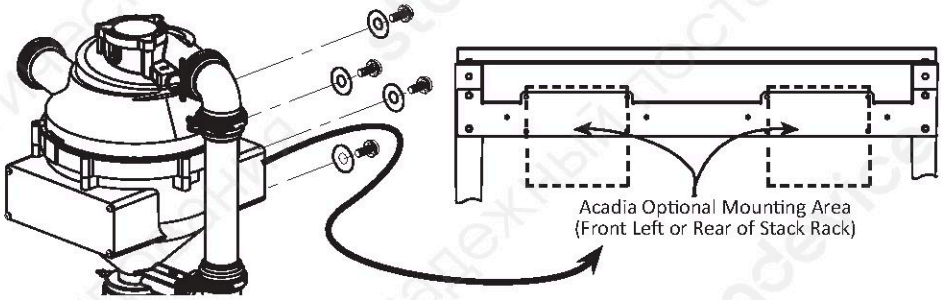
Acadia Amalgam Separator Mounting Options.

The Acadia, when used, can be installed on the Top Rails or hung from the front side (left or right) of the stack rack. When installing the Acadia on the top rails, the unit can be left in its Chassis/Mounting Bracket and simply set on Top Rails or secured with 2 bolts washers and nuts installed into the front or back holes (AA & FF). Make sure to install the hardware from the top down (through the bracket then the rail) when securing to the Top Rails. This eliminates any interference with the filter of the Acadia.

When hanging the Acadia on the front side of the rack, the Chassis/Mounting Bracket must be removed as shown by the drawing below. The Acadia is then installed on the selected front (left or right) area using the same mounting area and hardware (4 screws and flat washers) that secured the unit to the Chassis/Mounting Bracket.



Remove the
Chassis/Mounting Bracket



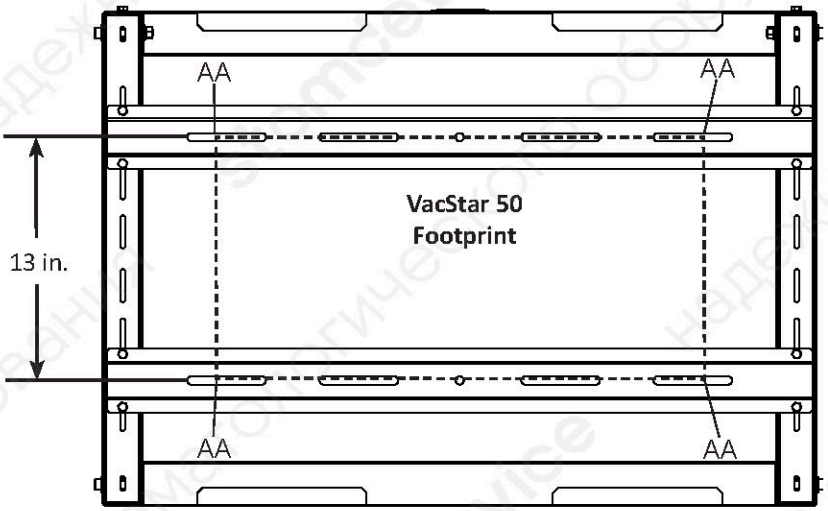
Mount the Acadia without Chassis/Mounting Bracket
(Front Left or Rear of Stack Rack)

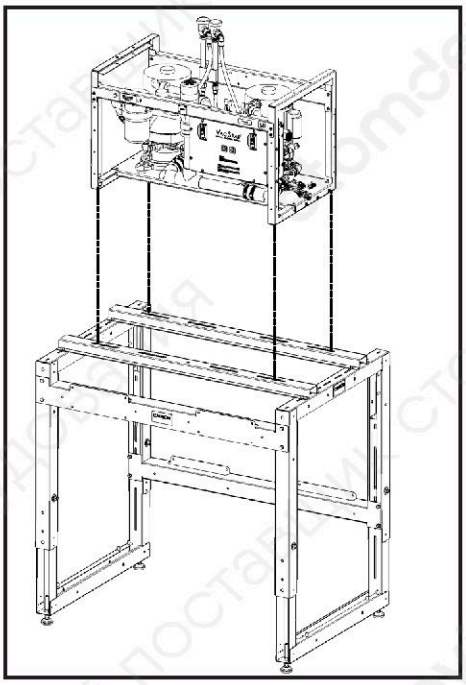
Acadia Amalgam Separator Mounting Options.

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Important: Make sure that each rail located as shown. The position of each Top Rail is dependant on the utility system to be installed.

VacStar 50 Installation Procedure. Refer to the drawings below and install the VacStar on the properly spaced Top Rails of the stack rack.





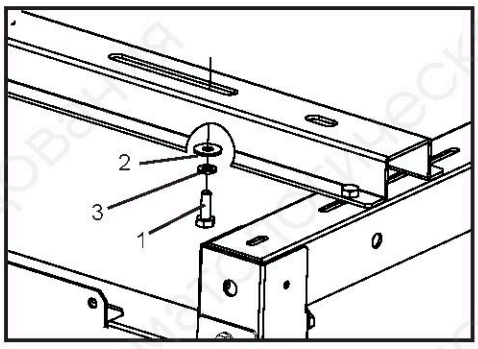
VacStar 50 Installation Position Views

VacStar 50 Installation and Attaching Hardware

VacStar 50 units are mounted on top of the Top Rails at corresponding locations as shown above. The VacStar frame is secured using the attaching hardware supplied with this Kit, P/N 56615.

Install the VacStar 50 unit by performing the following steps.

1. Orient the pump to be installed with its front facing forward.
2. Refer to the VacStar 50 Installation Position View above and align the rear holes of the VacStar with the holes (AA & NN) of the Top Rails.
3. Install four bolts (item 1) and washers (item 2) into the corresponding holes of the VacStar frame and the Top Rail as shown.
4. Refer to Detail A and secure the pump to the rails by installing a washer (item 2), lock washer (item 3) and nut (item 4) to each installed bolts. Tighten all nuts.



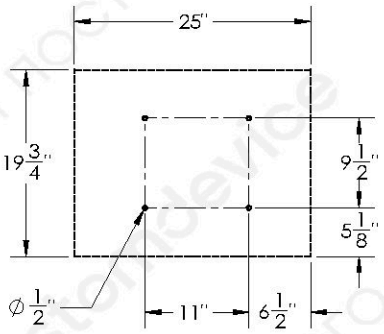
Securing Hardware Installation Order

VacStar 80 Securing Hardware			
Item	Description	Part No.	Quantity
1	Bolt, ¼-20 X ½ inch	30803	4
2	Washer, ¼ inch	30610	4
3	Lock Washer, ¼ inch	30222	4

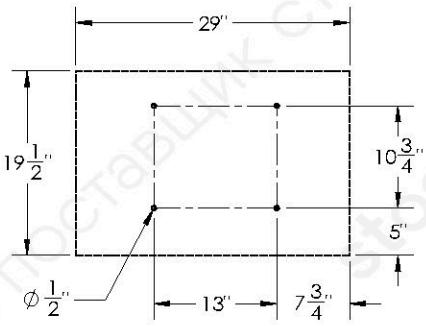
Hardware supplied with Kit, P/N 56615

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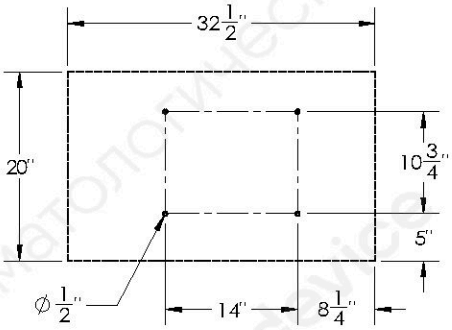
AS10 / AS12



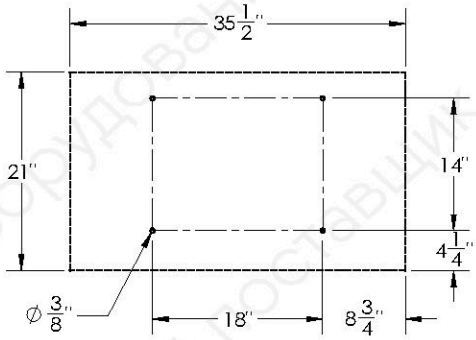
AS21 / AS22 / AS30



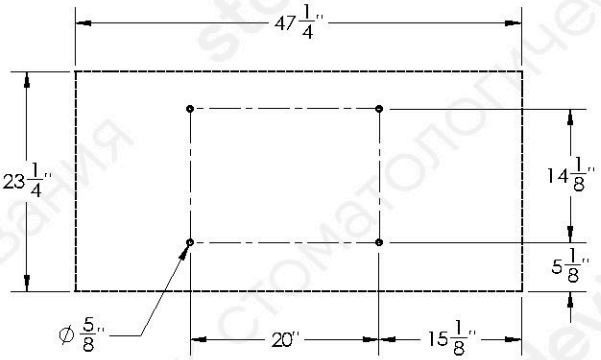
AS40



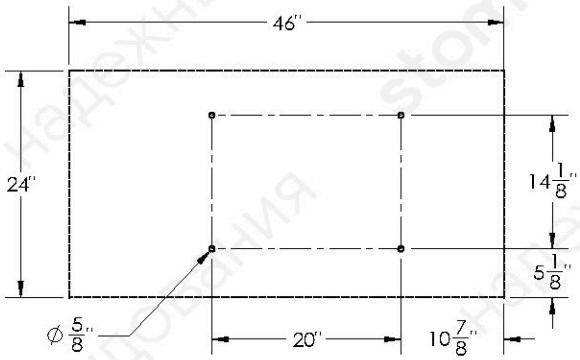
AS50



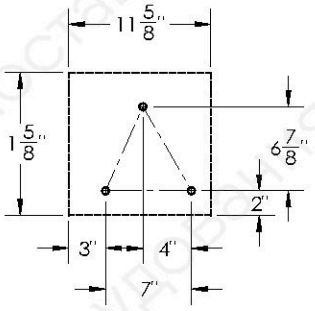
AS70



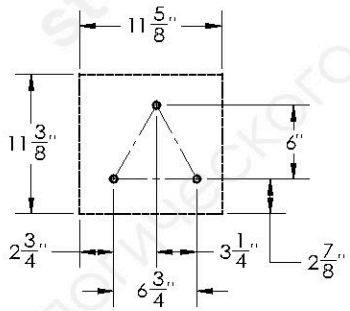
AS100



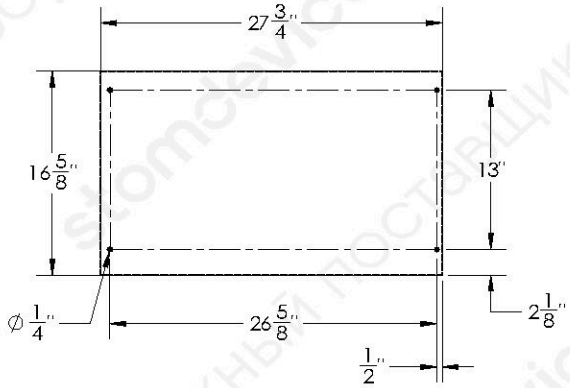
VS20 / VS40



VS20 / VS40 NEO

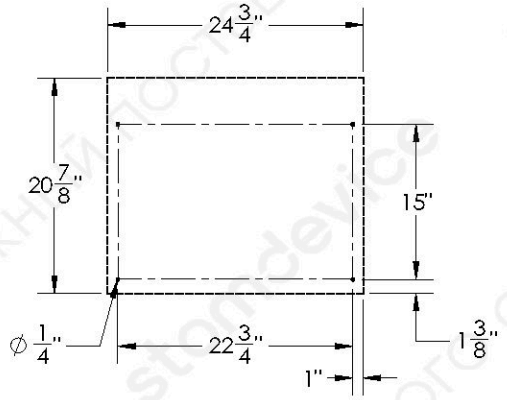


VS50 / VS50H / VS80 / VS80H

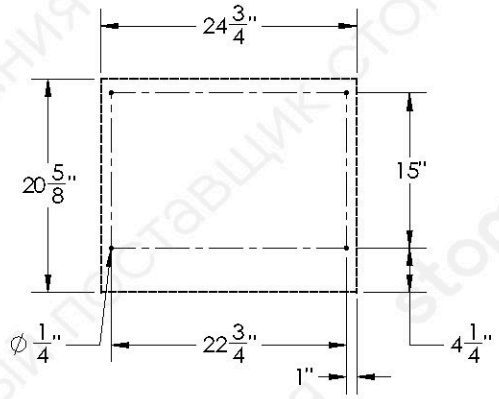


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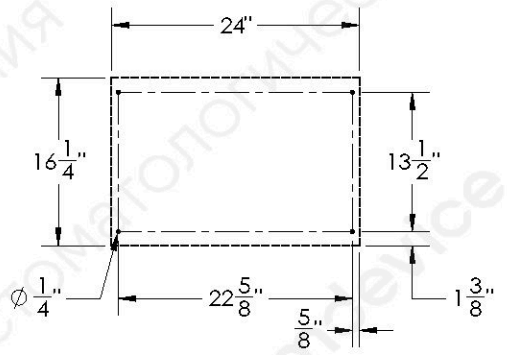
V3/ V5 / V7



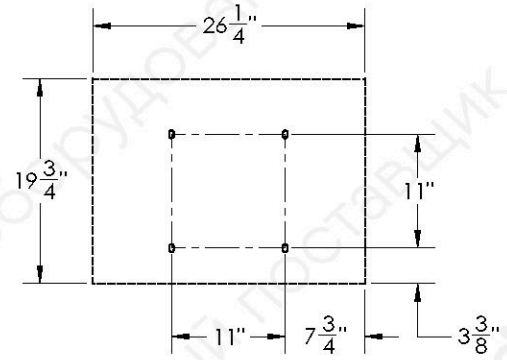
MT10 / CT20



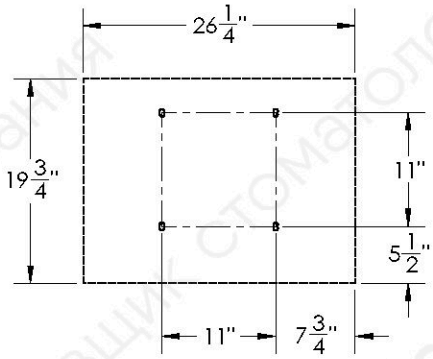
LT3



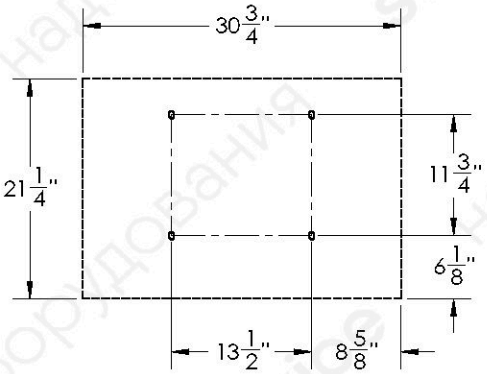
AS10NEO



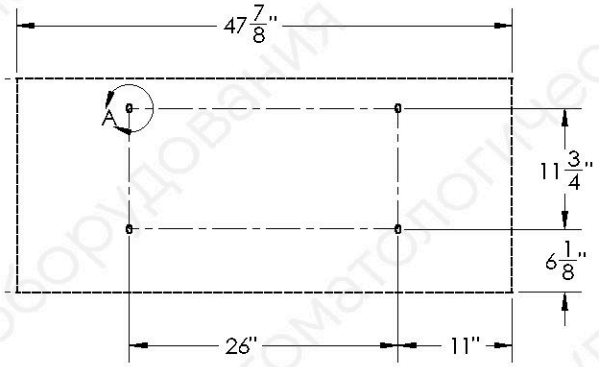
AS21NEO / AS22NEO / AS30NEO

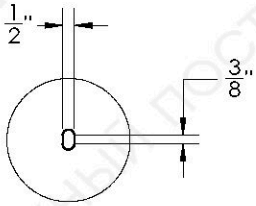


AS40NEO / AS50NEO



AS70NEO

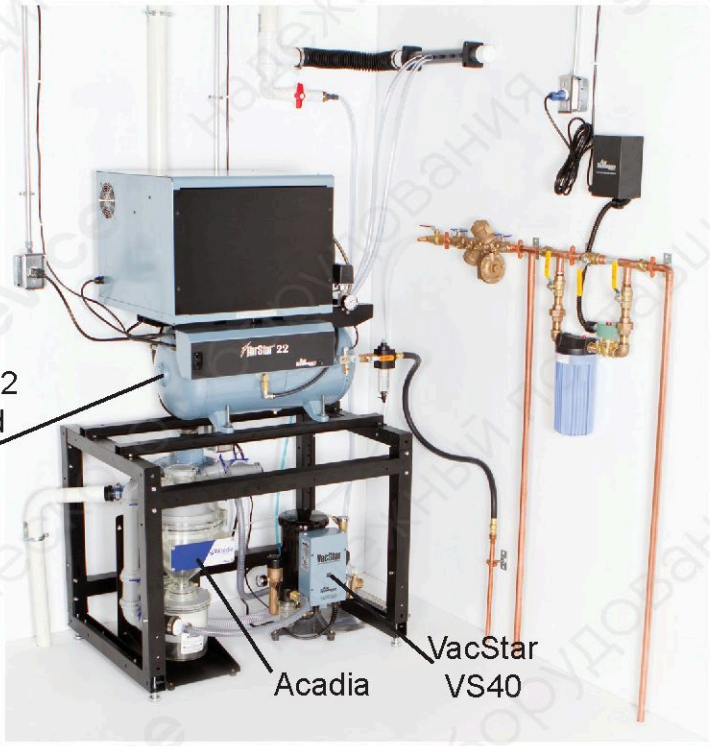




DETAIL A

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Typical Stack Rack Installation
(AirStar AS22 mounted on top)



Typical Stack Rack Installation
(Acadia and VacStar VS40 on top
AirStar AS22 mounted on bottom)

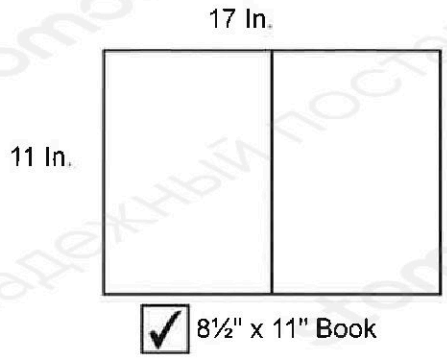
https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ



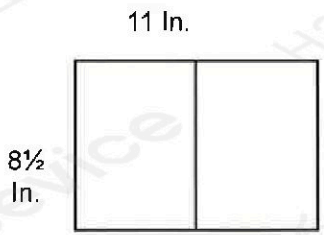
Typical Stack Rack Installation
(AirStar AS30 mounted on top VacStar VS50H on bottom
and an Acadia mounted on wall)

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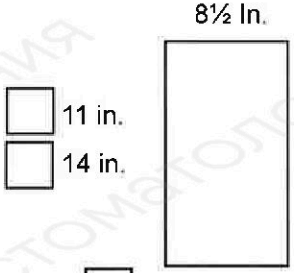
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☑ 8½" x 11" Book

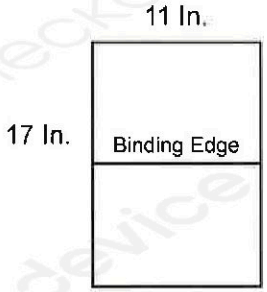


☐ 8½" x 5½" Book



☐ 11 in.
☐ 14 in.

☐ Print Single Side
☐ Print Double Side



☐ No Hole Punch
☐ 3-Hole @ Binding Edge

DATE	REV	REVISION RECORD	AUTH	DWN	CK
09/19	C	ECO 55-892	SFitz	RER	CK

Comments:

ORIGINAL

Application File Type:

☑ In Design ☐ Quark XPress
☑ PDF (for viewing) ☐ MS Word
☐ CorelDraw ☐ WordPerfect

Air Techniques Storage Location:

Stored by document part number in one of the network release drive directories checked below.

☐ Manuals ☑ Instructions

Finished Document Print Requirements

Doc size: 8.5 X11 16 Pages

Total sheets: 4 11 X17Sheets

Paper requirements	Weight	Brightness	Finish
☑ Standard	24lb	98	Mat
☐ Custom			

Print Black & White

Additional Options:

☐ Print in Color
☐ Card Stock
☑ Saddle Stitch / Fold (Staple Binding).
☐ UV Coat Both Sides
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TITLE: **UTILITY STACK MINI, PN 56600 Assembly & Installation Instructions**

DATE	SIZE	PART NO.	REV
9/29/19	A	56669	C

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- Film Processors

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- Wet Vacuums
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- Amalgam Separator
- Utility Accessories
- Utility Packages

❑ Merchandise

- Evacuation System Cleaner
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Corporate Headquarters
1295 Walt Whitman Road | Melville, New York 11747- 3062
Phone: 800-247-8324 | Fax: 888-247-8481

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