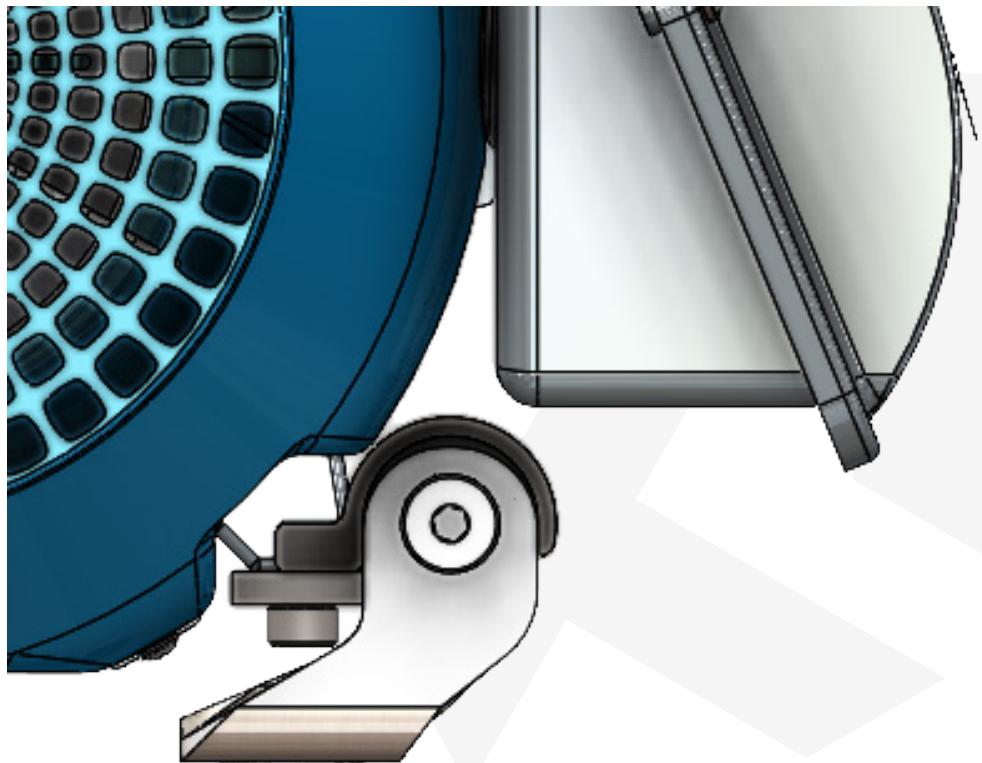




Motor Isolator Kit Installation Guide

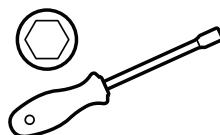
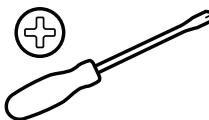
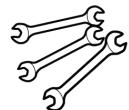


Know Before You Go

Tools You'll Need



Cordless Drill

Nut Driver
1/4" and 5/16"Screwdriver
Phillips

Thin Wrenches



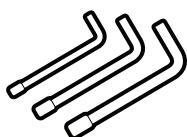
Adjustable Pliers



Needle Nose Pliers

Screwdriver
Slot

Offset Wrenches

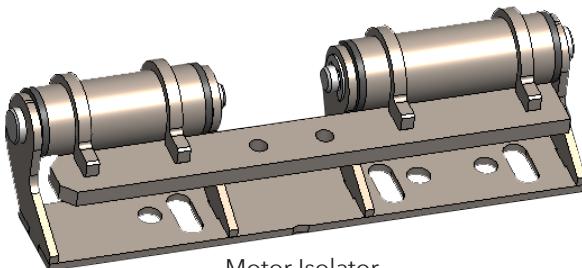
Hex Wrenches
Metric



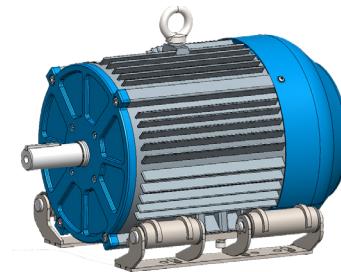
Getting Started

This guide is divided into three sections. Each section is specific to a motor model. Identify the motor model and select the appropriate section.

V01 Model Installation page 4



Motor Isolator
Qty 2
Left Foot Shown

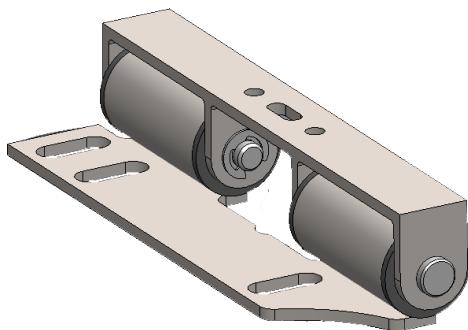


V01 Motor with
Motor Isolator Feet Installed

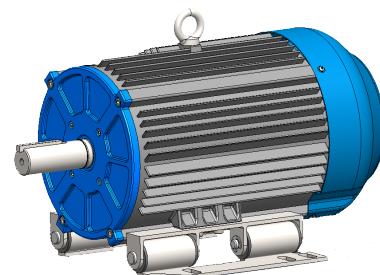
V01 Notes:

- V01-F motors, which are <3hp motors with a 182/184T frame size, may require V02 isolation feet. Contact your Turntide representative for more information.
- Some motor mounting plates have a lip that may not have the width necessary to install the V01 feet. If you encounter this situation, contact your Turntide representative for solutions.

V02 Model Installation page 8

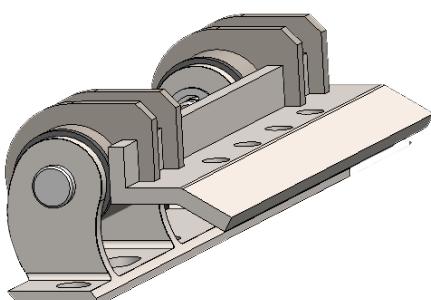


Motor Isolator
Qty 2
Left Foot Shown



V02 Motor with
Motor Isolator Feet Installed

V03 Model Installation page 10



Motor Isolator
Qty 2

Both left and right are the same

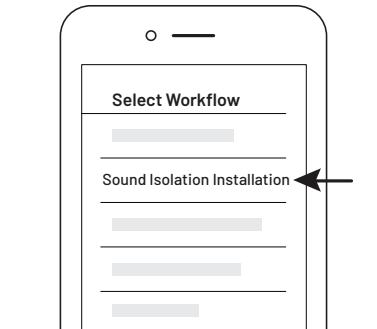


V03 Motor with
Motor Isolator Installed

Step-by-Step Motor Isolator Installation

V01 Series Instructions

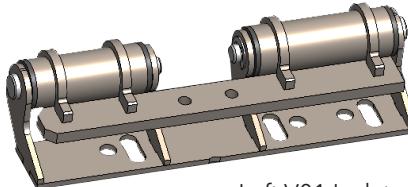
1. Start XOi Workflow #16



Some steps in the XOi workflow must be completed before installing the isolator feet. Open the XOi app and start XOi Workflow #16.

4. Confirm Components

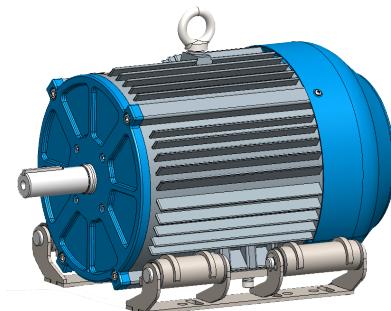
The isolator feet are motor specific. Confirm the correct isolator feet before continuing.



Left V01 Isolator Foot

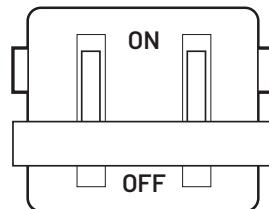
Note that the feet are not symmetrical. Thus they are identified as left and right.

7. Foot Orientation



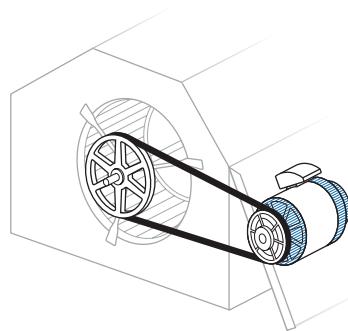
The feet are not symmetrical. They are identified as left and right, when facing the shaft end of the motor. The illustration here shows the correct orientation. Note that the shorter isolator is on the motor shaft end.

2. Disconnect Power



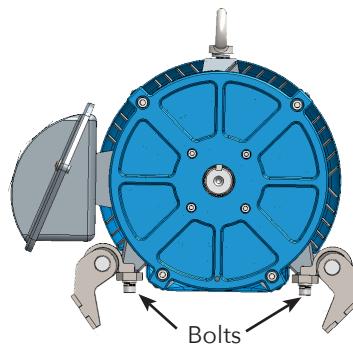
Isolate all incoming power to HVAC unit using normal "Lock Out/Tag Out" and local code requirements. Verify no power is present at the unit.

5. Remove Turntide Motor



Unbolt the motor from the mounting plate. If necessary, disconnect the motor power wires.

8. Pivot Isolator Feet



Pivot the isolator feet to allow space for reinstalling the feet bolts which were removed in previous step.

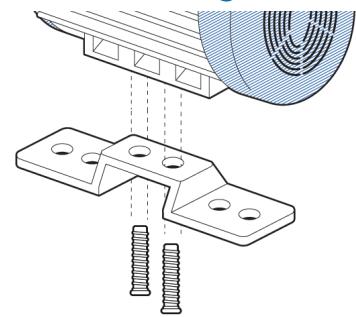
3. Identify Turntide Motor



Motor Model

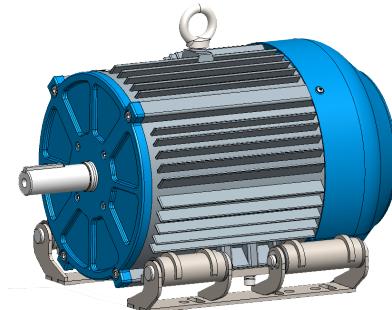
The Turntide motor model and series are found on the nameplate. This section is specific to the V01 series motors. Separate sections cover the V02 and V03 series motors.

6. Remove Existing Motor Feet



Using a 5mm hex wrench remove the bolts and existing motor feet. Retain the bolts for reuse when attaching the isolator foot.

9. Position Isolators



Pivot isolator feet back to align with motor mounting plate mounting holes. Use of push nut bolt retainers may be helpful when bolting the motor to the mounting plate.



Step-by-Step Motor Isolator Installation

V01 Series Instructions

Difficult Access

Overview

In some situations the motor mounting bolts are difficult to access. This procedure listed here outlines the general process for such situations.

A. Foot Identification



Identify the left and right feet. Note that the design provides for a shorter foot, which goes to the motor front. The longer isolator goes toward the rear of the motor.

B. Foot Disassembly



Disassemble the isolator by removing the E-clips from the rod, sliding the rods out and separating the lower foot section from the upper foot section.

C. Mounting Plate Removal



Position the motor on the mounting plate and securely tighten the bolts. The motor is now ready to reinstall in the unit.

D. Lower Foot Installation



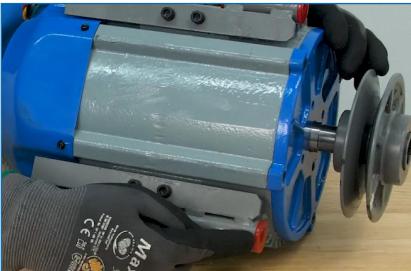
Place the lower section of the isolator foot on the motor mounting plate. Install the motor mounting bolts hand tight.

E. Remove Existing Feet



Remove the existing motor foot bolts from the motor using a 5mm hex wrench. If a foot spacer was originally installed, it may be removed in most situations.

F. Upper Foot Installation



Attach the upper foot section to the motor.

G. Reassembly



Connect the upper and lower sections of the isolator foot using the rods and E-clips that were removed earlier. Ensure the E-clips are securely in place.

H. Tighten Motor Foot Bolts



Position the motor on the mounting plate and securely tighten the bolts. The motor is now ready to reinstall in the unit.

Step-by-Step Motor Isolator Installation

V01 Series Instructions

Overview

Some vertical applications present a unique set of challenges, which are easily addressed. The information here provides guidance on overcoming the challenges.

Additional Necessary Supplies



5/16" x 1"
Carriage bolt



5/16" Push Nut
Bolt Retainer

Qty - 1

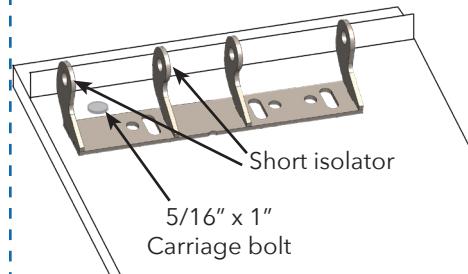
Qty - 2

C. Remove Existing Motor Feet



Remove the existing motor foot bolts from the motor using a 5mm hex wrench. If a foot spacer was originally installed, it may be removed in most situations.

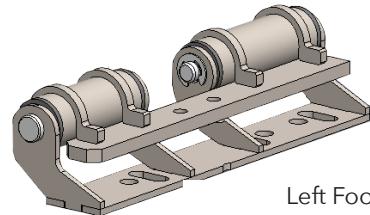
F. Attach Lower Foot to Plate



Place the lower section of the isolator foot on the motor mounting plate. The shorter isolator must be nearest to the side closest to the shaft/belt. Install the motor mounting bolts hand tight.

Vertical Mounting

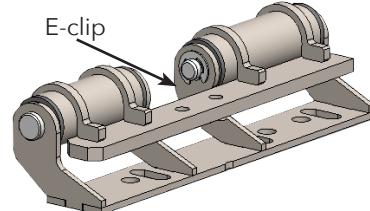
A. Foot Identification



After removing the motor assembly from the unit, remove the motor and mounting plate from the unit.

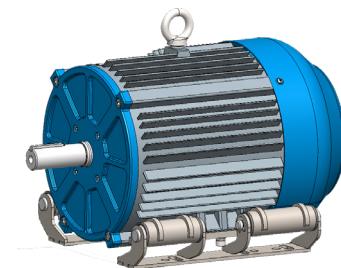
Identify the left and right feet. Note that the design provides for a shorter foot, which goes to the motor front. The longer isolator goes toward the rear of the motor.

D. Disassemble Isolator Feet



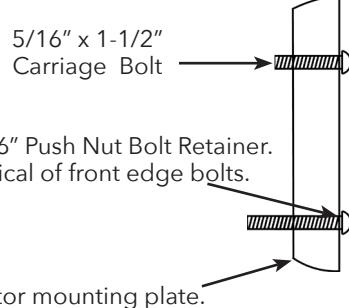
Disassemble the isolator by removing the E-clips from the rod, sliding the rods out and separating the lower foot section from the upper foot section.

G. Reassemble the Isolator Foot



Connect the upper and lower sections of the isolator foot using the rods and E-clips that were removed earlier. Ensure the E-clips are securely in place.

B. Install Bolt & Push Nuts

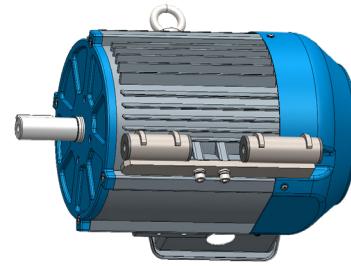


5/16" Push Nut Bolt Retainer.
Typical of front edge bolts.

Motor mounting plate.

Install the new carriage bolt in the upper left corner of the mounting plate. Add push nut bolt retainer to the bolts nearest the shaft/belt.

E. Attach Upper Foot to Motor



Install the upper isolator foot to the motor. Ensure the shorter section is toward the front of the motor. If the motor foot spacer was removed, shorter motor foot mounting bolts will be necessary.

H. Tighten Motor Foot Bolts



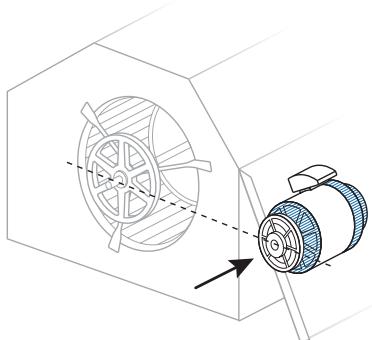
Position the motor on the mounting plate and securely tighten the bolts. The motor is now ready to reinstall in the unit.



Step-by-Step Motor Isolator Installation

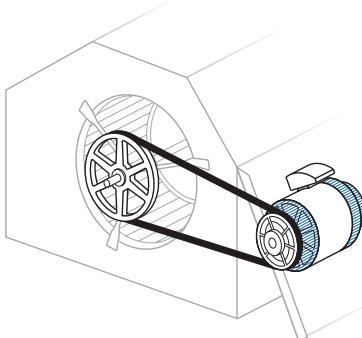
V01 Series Instructions

10. Verify Pulley Alignment



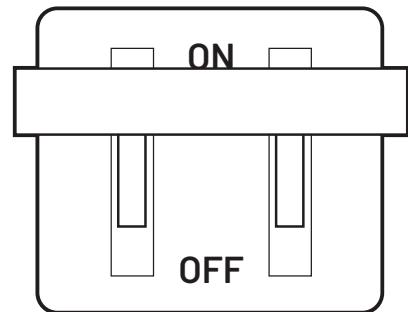
Verify pulley alignment.

11. Tension Belt As Necessary



Make necessary adjustments to properly tension the belt. A different length belt may be required.

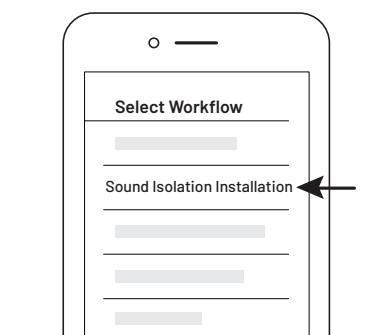
12. Restore Power



13. Verify Motor/Unit Operation

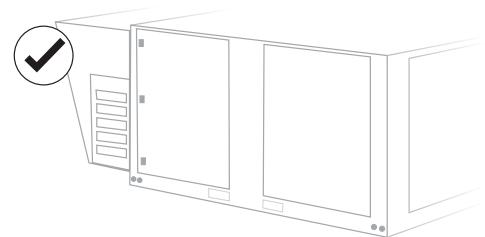
Confirm unit and motor operation.

14. Complete XOi Workflow #16



Complete the Turntide Motor Sound Isolation Installation workflow (XOi Workflow #16).

15. Re-install Panels



Confirm all access panels are re-installed on unit and are secure. Ensure all unit disconnects are in the ON position. Remove all materials and tools from roof.

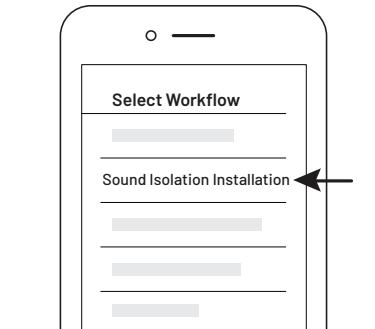
16. Secure Roof and Check Out

Secure roof access and check out with on-site manager.

Step-by-Step Motor Isolator Installation

V02 Series Instructions

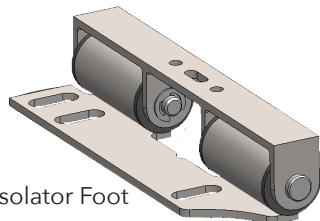
1. Start XOi Workflow #16



Some steps in the XOi workflow must be completed before installing the isolator feet. Open the XOi app and start XOi Workflow #16.

4. Confirm Components

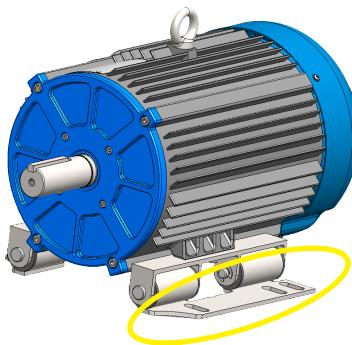
The isolator feet are motor specific. Confirm the correct isolator feet before continuing.



Left V02 Isolator Foot

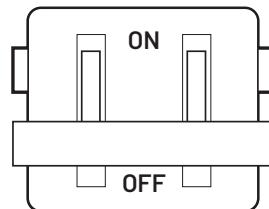
Note that the feet are not symmetrical. Thus they are identified as left and right.

7. Foot Orientation



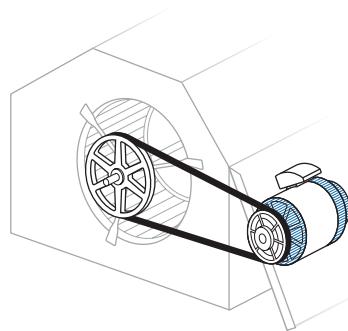
The feet are not symmetrical. They are identified as left and right, when facing the shaft end of the motor. The illustration here shows the correct orientation.

2. Disconnect Power



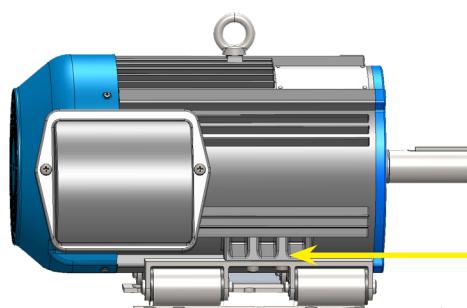
Isolate all incoming power to HVAC unit using normal "Lock Out/Tag Out" and local code requirements. Verify no power is present at the unit.

5. Remove Turntide Motor



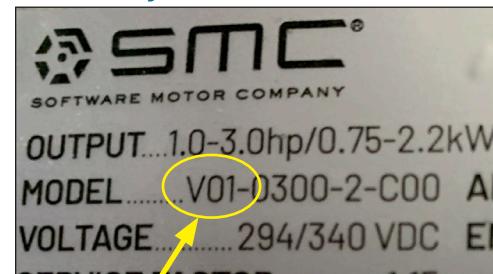
Unbolt the motor from the mounting plate. If necessary, disconnect the motor power wires.

8. Foot Alignment



There are multiple mount holes for attaching the foot to the V02 series motor. The rear bracket/bushing should be aligned with the foot mounting boss on the motor.

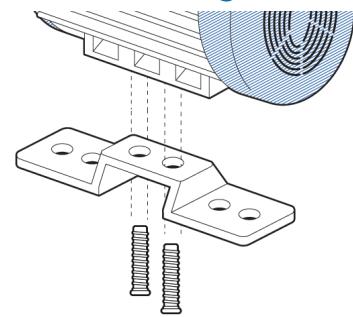
3. Identify Turntide Motor



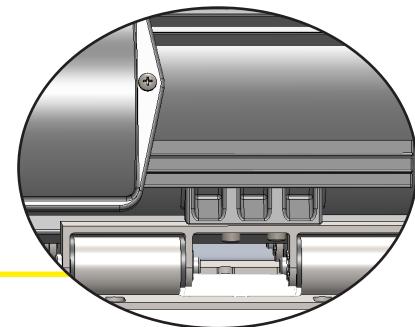
Motor Model

The Turntide motor model and series are found on the nameplate. This section is specific to the V02 series motors. Separate sections cover the V01 and V03 series motors.

6. Remove Existing Motor Feet



Using a 5mm hex wrench remove the bolts and existing motor feet. Retain the bolts for reuse when attaching the isolator foot.

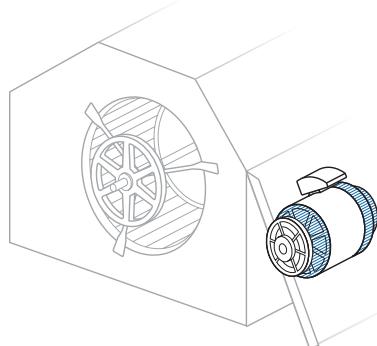




Step-by-Step Motor Isolator Installation

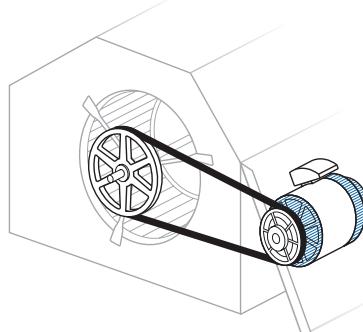
V02 Series Instructions

9. Reinstall Turntide Motor



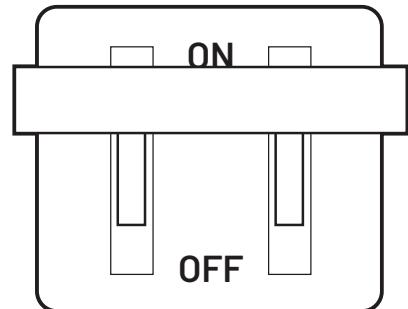
Reinstall the Turntide motor. If necessary, reconnect the motor power wires.

10. Tension Belt As Necessary



Make necessary adjustments to properly tension the belt. A different length belt may be required.

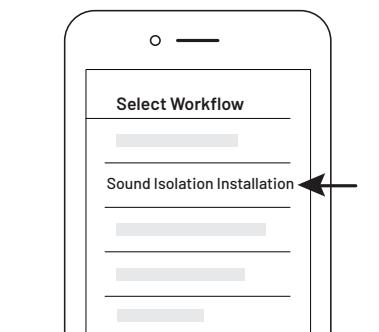
11. Restore Power



12. Verify Motor/Unit Operation

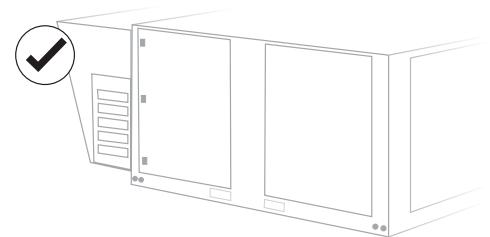
Confirm unit and motor operation.

13. Complete XOi Workflow #16



Complete the Turntide Motor Sound Isolation Installation workflow (XOi Workflow #16).

14. Re-install Panels



Confirm all access panels are re-installed on unit and are secure. Ensure all unit disconnects are in the ON position. Remove all materials and tools from roof.

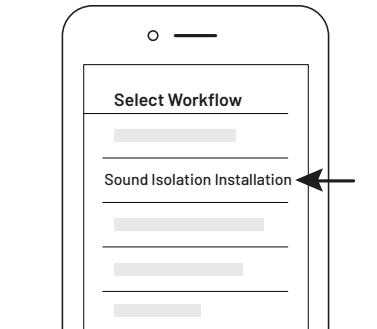
17. Secure Roof and Check Out

Secure roof access and check out with on-site manager.

Step-by-Step Motor Isolator Installation

V03 Series Instructions

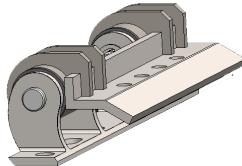
1. Start XOi Workflow #16



Some steps in the XOi workflow must be completed before installing the isolator feet. Open the XOi app and start XOi Workflow #16.

4. Confirm Components

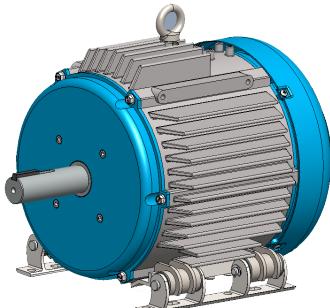
The isolator feet are motor specific. Confirm the correct isolator feet before continuing.



V03 Isolator Foot

Note that the feet are symmetrical. Thus there is no left or right foot for the V03 motor series

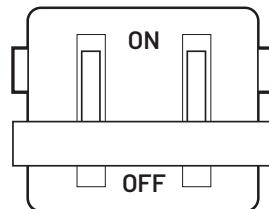
7. Foot Orientation



V03 Foot Orientation

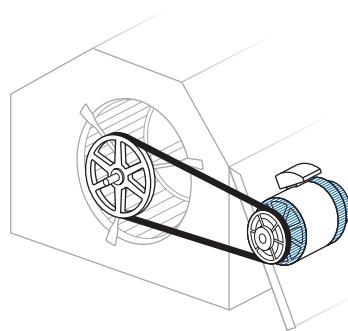
The feet are symmetrical. The illustration here shows the normal configuration.

2. Disconnect Power



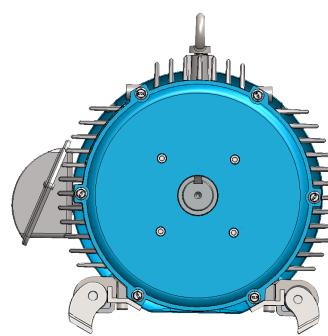
Isolate all incoming power to HVAC unit using normal "Lock Out/Tag Out" and local code requirements. Verify no power is present at the unit.

5. Remove Turntide Motor



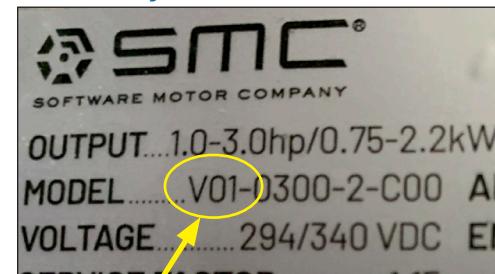
Unbolt the motor from the mounting plate. If necessary, disconnect the motor power wires.

8. Pivot Isolator Feet



Pivot the isolator feet to allow space for reinstalling the feet bolts which were removed in previous step.

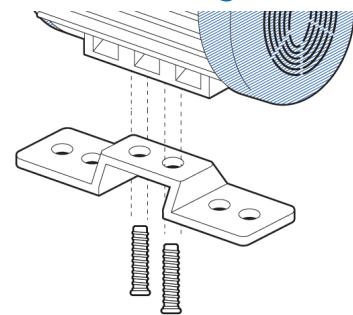
3. Identify Turntide Motor



Motor Model

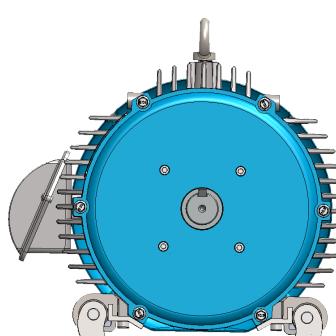
The Turntide motor model and series are found on the nameplate. This section is specific to the V03 series motors. Separate sections cover the V02 and V03 series motors.

6. Remove Existing Motor Feet



Using a 5mm hex wrench remove the bolts and existing motor feet. Retain the bolts for reuse when attaching the isolator foot.

9. Position Isolators



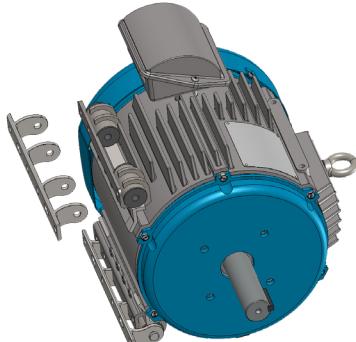
Pivot isolator feet back to align with motor mounting plate mounting holes.



Step-by-Step Motor Isolator Installation

V03 Series Instructions

PRO TIP: V03 Vertical Installation



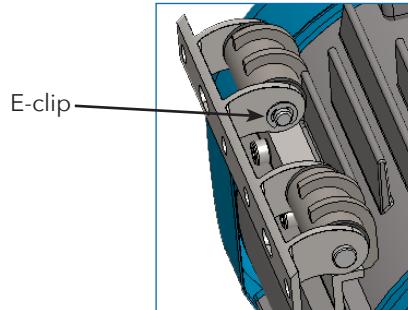
It may be easier to 1) disassemble the top foot, 2) bolt the foot section to the mounting plate, 3) reassemble the foot, 4) with the motor hanging from the top foot, bolt the lower foot in place.

Disassembly Instructions

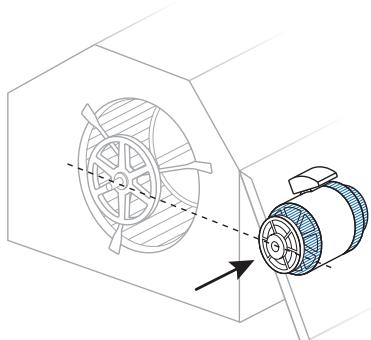
- Remove the two E-clips from left motor foot rod pins.
- Remove the two rod pins from the motor foot.

Reassembly Instructions

- Insert the rod pin back into the foot assembly.
- Reinstall the two E-clips on the rod pins.

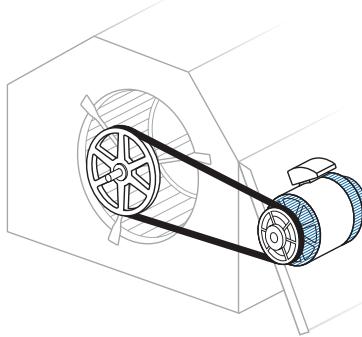


10. Verify Pulley Alignment



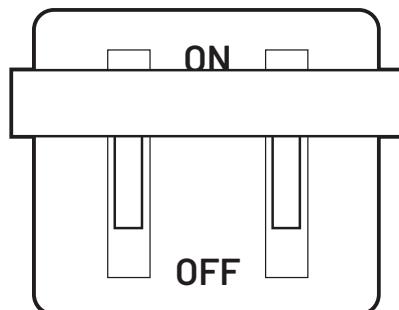
Verify pulley alignment.

11. Tension Belt As Necessary



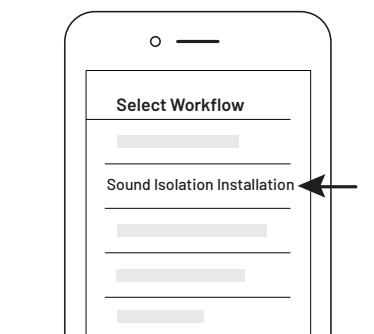
Make necessary adjustments to properly tension the belt. A different length belt may be required.

12. Restore Power



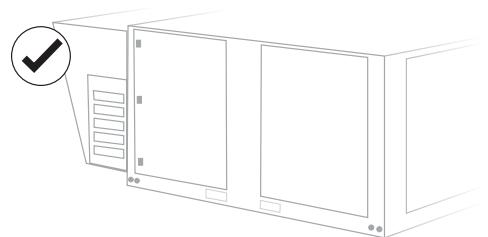
13. Verify Motor/Unit Operation

Confirm unit and motor operation.



Complete the Turntide Motor Sound Isolation Installation workflow (XOi Workflow #16).

14. Complete XOi Workflow #16



Confirm all access panels are re-installed on unit and are secure. Ensure all unit disconnects are in the ON position. Remove all materials and tools from roof.

Secure roof access and check out with on-site manager.

Contact Us

If you encounter issues that are not covered in this Install Guide or have other questions about the Turntide Motor System as it relates to your specific application, please contact Turntide's Technical Support team.

877.776.8470
(877.PRO.TIP+)
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Indemnity

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Turntide Technologies (formerly Software Motor Company) has developed the world's most efficient and intelligent electric motor system. The revolutionary Smart Motor System is based on proven switched reluctance technology, now managed with advanced cloud software and connected to precise controls via IoT. Turntide's vision is to eliminate the 25% of global electricity consumption that is wasted by legacy motors, thus accelerating the world's transition from fossil fuels. Turntide is based in Sunnyvale, Calif., with offices in San Francisco; Arlington, Wash.; and Kennesaw, Ga. Turntide has installed Smart Motor Systems with dozens of customers, reducing their motor electricity consumption by an average of 64%, and is powering the systems of leading OEMs. For further information, visit www.turntide.com.