X-VENTISO by earthcore

Automatic Flue Dampers

Installation, Operation and Maintenance

XV-GFD / XV-TMD Gas top-mount dampers, 8 to 16 in.

XV-INLD Gas inline dampers, 8 to 16 in.

XV-SFD Automatic solid fuel dampers, 8 to 16 in. and DM54 flue

UL 378, ETL Listed. Powered and proven by the X-VENTISO controller through one 4-pin Molex lead. Each damper fails the safe way for its fuel.

GAS DAMPERS: GAS APPLIANCES ONLY. NEVER ON A WOOD FIRE.



1 Read First

Read this manual fully before installing, and leave it with the homeowner or building owner. Installation and service are for qualified personnel familiar with the codes that apply to the job.

DANGER: Never install a gas damper (XV-GFD, XV-TMD, XV-INLD) on a wood or other solid fuel appliance. A gas damper fails closed on loss of power, and a wood fire keeps burning. Solid fuel takes the XV-SFD, which fails open.

DANGER: Disconnect, lock and tag all power to the X-VENTISO controller and the appliance before installing or servicing the damper.

WARNING: The appliance must never fire into a flue that has not been proven open. Never bypass, jumper or defeat the damper proving or the controller interlock.

WARNING: Every joint must be gas-tight. A leaking joint can let flue gas, including carbon monoxide, into the building.

CAUTION: Follow all national, state and local codes and the appliance and flue manufacturers' instructions. Where they differ from this manual, the code governs. Codes are adopted and amended locally, and the authority having jurisdiction makes the final call on every installation.

THE THREE MOST COMMON INSTALL MISTAKES. CHECK THESE BEFORE YOU CLOSE THE CHASE.

1. **The wrong damper for the fuel, or the wrong controller for the damper.** Gas dampers seal and fail closed. The solid fuel damper has a deliberate gap and fails open. Each is wired for the safe position for its fuel. Match the damper to the fuel, and the controller to the damper, every time. The Molex lead plugs into either type of controller. See Sections 2 and 8.
2. **The wrong attachment for the damper.** A top-mount damper (gas or solid fuel) needs **both** mechanical fasteners (minimum four #8 stainless screws) **and** a continuous sealant bead where it seats on the flue. The inline damper needs neither: its heat shield clamps both joints, and both latches must be engaged. See Sections 4 and 6.
3. **A buried actuator or Molex connection.** The actuator and every Molex connection must stay reachable. Never put an extension or a connection in conduit or a closed wall. See Sections 6 and 8.

Annual inspection is required. Have a qualified professional inspect the damper every year, at the same visit as the appliance and flue service (Section 11). Solid fuel dampers are inspected for creosote at every chimney inspection. **2-year warranty**, valid with proper installation and use per this manual and a documented annual inspection. **Skipping the annual inspection voids the warranty.** Not covered: damage from flue gas above the damper's temperature rating, or from weather.

What this manual covers

1. Read First
2. Choose the Damper
3. How It Works
4. Joint Attachment (Top-Mount)
5. Gas Top-Mount Installation
6. Gas Inline Installation
7. Solid Fuel Damper Installation
8. Connecting the Damper
9. Start-Up and Commissioning
10. Operation
11. Annual Maintenance
12. Troubleshooting
13. Specifications
14. Installation Checklist and Record

2 Choose the Damper

Pick the family by fuel first, then by where the damper sits in the flue. The fuel decides everything else.

	Gas top-mount XV-GFD / XV-TMD	Gas inline XV-INLD	Solid fuel XV-SFD
Fuel	Gas appliances only	Gas appliances only	Wood and solid fuel
Location	Top of the flue run	In the flue run, vertical or horizontal	Top of the flue run
Selected by	Draft inducer model and flue size	Flue size only	Draft inducer model and flue size
Draft inducer	Mounts on the damper flange, or cap without one	Any XV Series draft inducer, or none	Mounts on the damper flange, or cap without one
Closed position	Seals on a silicone rubber seal	Seals on a silicone rubber seal	No seal. Deliberate gap for creosote
On loss of power	**Fails closed**	**Fails closed**	**Fails open**
Controller	XV-GBC, XV-GBC-DUO, Meridian, Meridian DUO, or stand-alone XV-GFDC	XV-GBC, XV-GBC-DUO, Meridian, Meridian DUO, or stand-alone XV-GFDC	XV-WBC, XV-WBC-DUO, or stand-alone XV-SFDC

Part numbers

The number after the dash is the flue size in inches. It never has a leading zero (-8, never -08). Full list: XV-REF-DMP-PARTS.

Family	Part number	Flue	Draft inducer (if used)
Gas top-mount	XV-GFD250-8	8 in.	XV150, XV250
	XV-GFD250-10, -12, -14	10, 12, 14 in.	XV250 (-10 also fits XV150)
	XV-TMD1250-13	13 in.	XV150, XV250
	XV-GFD350-12, -14, -16 · XV-TMD350-13	12, 13, 14, 16 in.	XV350
Gas inline	XV-INLD-8, -10, -12, -13, -14, -16	8 to 16 in.	Any, or none
Solid fuel	XV-SFD1250-8, -10, -12, -13, -14, -16 · XV-SFD1250-DM	8 to 16 in., DM54	XV150, XV250
	XV-SFD350-12, -13, -14, -16 · XV-SFD350-DM	12 to 16 in., DM54	XV350

Without a draft inducer

A top-mount damper (gas or solid fuel) on a flue that drafts on its own is finished with an X-VENTISO cap sized to the damper. Call 800.642.2920 for the cap. Select the damper for the XV Series model the flue would take (flue calculator, or send the plans). A draft inducer added later mounts on the same damper.

In the box

- Damper with actuator, factory assembled (XV-INLD: with its heat shield)
- 30 ft 4-pin Molex lead

Supplied by the installer

- Top-mount dampers: #8 self-tapping sheet metal screws, 304 stainless or higher grade, 1/2 in. minimum shank, and high-temp sealant (Section 4)
- X-VENTISO controller, draft inducer or cap
- Molex extension or custom lead if the run is over 30 ft
- Access panel where an inline damper sits in a chase or wall

3 How It Works

The damper has no field wiring. It is powered, commanded and proven by the X-VENTISO controller through one 4-pin Molex lead. The actuator is spring return, so the damper goes to its safe position by itself when power is lost.

Gas dampers (XV-GFD, XV-TMD, XV-INLD)

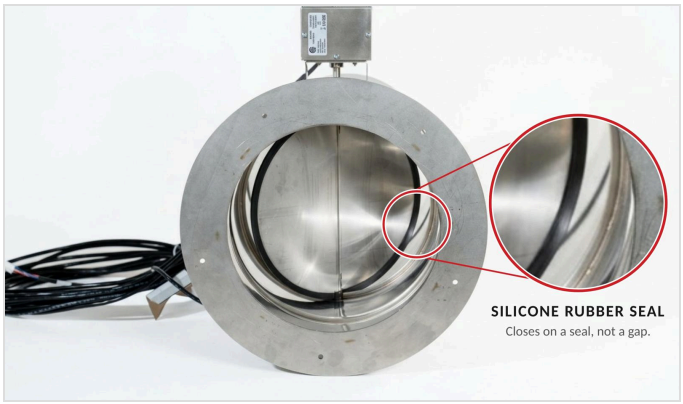
1. Call for operation: appliance switch, remote, or home or building automation, through the X-VENTISO controller.
2. The controller opens the damper and proves it open. On GBC and Meridian, draft is proven as well.
3. Only then is the appliance gas control enabled. If the damper does not prove open, the appliance does not light.
4. When the call ends, the appliance shuts off and the damper closes on its silicone seal.
5. On loss of power the controller, which is in the appliance interlock circuit, closes the gas valve, including on ignition controls with battery backup. The damper then closes and seals the flue (~5 seconds). The appliance cannot light until power returns and the damper proves open again.

Solid fuel damper (XV-SFD)

1. The system is switched on: wall switch, remote, or home or building automation, through the X-VENTISO controller.
2. The damper opens and the controller proves it open.
3. If the damper does not prove open, the controller sounds an audible and visual alarm.
4. The damper stays open until the system is switched off. Switch off only once the fire is fully out.
5. On loss of power the damper fails open. WBC and WBC-DUO alarm on power loss while in use (battery-backed). The stand-alone SFDC alarms on power loss through a small UPS (battery backup).

Each damper fails the safe way for its fuel. A gas fire stops when the gas valve closes, so the gas damper closes and seals the flue. A wood fire keeps burning, so the solid fuel damper opens and keeps the flue clear.

	Gas dampers	Solid fuel damper
Powered	Open (during a call)	Open (while switched on)
Unpowered or power lost	Closed and sealed	Open
Proven by the controller	Open, before the gas is enabled	Open, with alarm if not
Seal	Silicone rubber	None. Deliberate gap so creosote does not bind the blade



Gas damper: closes on a silicone rubber seal.

Code basis

Gas: designed for NFPA 54 (2018) 12.15, a listed automatically operated vent damper, interlocked so the appliance cannot fire unless the damper is open. No manual damper is permitted in the vent connector (12.14).

Solid fuel: designed for NFPA 211 (2019) 9.9.4, a listed automatic damper installed per its listing, and 11.2.9.2, a damper at the top of the flue operable from the room.

Listing: all dampers UL 378, ETL Listed, Intertek control no. 4007025. Gas dampers are listed for gas appliances only.

4 Joint Attachment (Top-Mount Dampers)

Make the joint between the flue and a top-mount damper (gas or solid fuel) this way. The same rule as the WSPRDraft silencer. **The inline damper (XV-INLD) is different: no screws and no sealant; its heat shield clamps both joints (Section 6).**

Damper	Joint(s) that take screws and sealant
Gas top-mount (XV-GFD, XV-TMD)	The lower ring, where the damper seats on the flue
Gas inline (XV-INLD)	**None.** The heat shield clamps both joints (Section 6)
Solid fuel (XV-SFD)	The bottom plate, where the damper rests flat on the top of the flue run

1. Fit the damper to the flue, to the full overlap the flue manufacturer specifies.
2. Fasten the flue to the damper with a minimum of four (4) #8 stainless sheet metal screws, evenly spaced around the joint.
3. Run a continuous bead of high-temp sealant around the joint, where the flue and the damper overlap, to make the gas seal. Use the sealant the flue manufacturer specifies for its joints. On a gas damper, if it does not specify one, use high-temp RTV silicone rated to at least 600°F (315°C). On a solid fuel damper, use only the sealant the chimney manufacturer specifies (see the table below).
4. Keep sealant off the blade, the seal, the shaft and the actuator.

TWO METHODS AT EVERY TOP-MOUNT JOINT.

Screws and sealant, where a top-mount damper seats on the flue. One without the other does not meet the installation requirements.

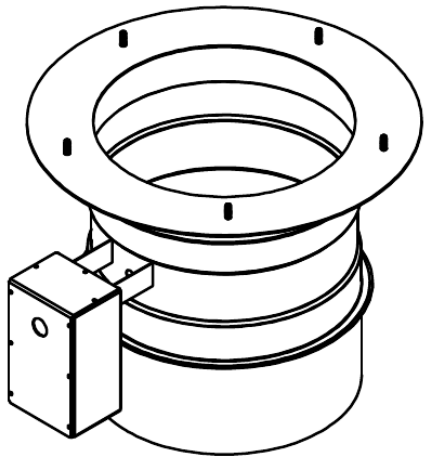
Fastener requirement	
Type	#8 self-tapping sheet metal screw
Material	304 stainless or higher grade
Shank	1/2 in. minimum
Quantity	4 minimum per joint, evenly spaced
Sealant, gas	High-temp RTV silicone, as specified by the flue manufacturer. If not specified: rated to at least 600°F (315°C).
Sealant, solid fuel	The high-temp sealant the chimney manufacturer specifies for its joints, applied per its instructions. If its instructions do not name one, get the chimney manufacturer's recommendation before installing. Never RTV silicone.

NOTICE: Never drill or screw through the damper body above the joint, the blade area, the actuator bracket or the heat shield. Fasten only at the joint.

NOTICE: Do not turn the blade by hand to test it. The shaft is clamped to a spring-return actuator, and forcing it can damage the actuator. Check travel only by powered cycling (Section 9).

5 Gas Top-Mount Installation (XV-GFD, XV-TMD)

1. Confirm the job: gas appliance, flue size, and the draft inducer model (or the model the flue would take, if a cap is used). Check the part number against Section 2.
2. Disconnect, lock and tag power to the controller and the appliance.
3. Finish the flue run square and at the height the plans call for. The height of the damper and draft inducer above the chase top is on submittal XV-SUB-DMP-GFD.
4. Set the damper on the flue with the flow arrow on the label pointing up, toward the termination. It seats on the flue at its lower ring. Turn it so the actuator faces the side you will reach it from for service, and so the lead can run down to the controller.
5. Fasten and seal the lower ring per Section 4.
6. Mount the draft inducer on the damper flange, per the draft inducer installation manual. Without a draft inducer, mount the X-VENTISO cap sized to the damper.
7. Route the 30 ft Molex lead to the controller (Section 8). Keep it off hot flue surfaces and secure it so it does not move in wind.
8. Leave the actuator open to free air. A chase shroud or enclosure may cover the damper, but must not trap heat around the actuator. Keep insulation at least 4 in. from the actuator, its bracket and the shaft.

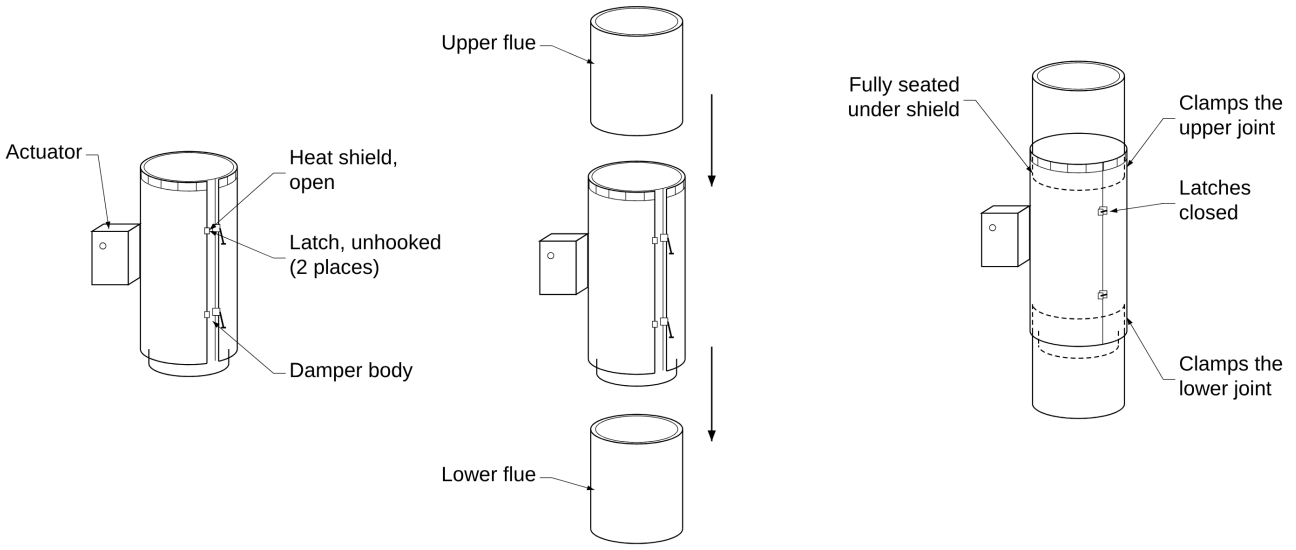


Gas top-mount damper. Flange carries the draft inducer; lower ring seats on the flue.

Clearances. Keep the clearances to combustibles the chimney or flue manufacturer requires, and the termination clearances the code requires. The damper does not reduce any required clearance.

Weights are by size, available on request. **Dimensions** (height above chase top, width with actuator) are on submittal XV-SUB-DMP-GFD.

6 Gas Inline Installation (XV-INLD)



Step 1: Unhook | Step 2: Slide On | Step 3: Close and Latch

The heat shield is the clamp. Drawing XV-INLD-CLAMP-DTL, XV-INLD-12 shown.

NO SCREWS. NO SEALANT. THE HEAT SHIELD CLAMPS BOTH JOINTS.

1. Confirm the job: gas appliance, and the flue size. The XV-INLD is selected by flue size only and works with any XV Series draft inducer, or none.
2. Disconnect, lock and tag power to the controller and the appliance.
3. Pick the location between the appliance flue outlet and the termination, where the actuator can be reached for service and is open to free air. Never in a closed cavity where heat builds up.
4. Orient the damper with the flow arrow on the label pointing toward the termination.
5. Vertical or horizontal runs. **In a horizontal run, the actuator goes on the side, never underneath.**
6. **Unhook the heat shield.** Every size has two draw latches on the shield seam. Lift each latch lever and unhook it from its keeper. The shield opens at its seam.
7. **Slide the flue sections on.** Slide a flue section under the open heat shield at each end until it is fully seated. Attach flue at both ends, including where a flue section is already part of the damper. Using a vent system other than the one specified with the damper? Call 800.642.2920 before installing.
8. **Close and latch.** Close the shield so the notched edge on the keeper side tucks under the latches. Hook each latch over its keeper and fold the lever back on itself until it lies flat. Do not add screws or sealant at the damper.
9. Support the flue run on both sides of the damper per the flue manufacturer's support spacing, so the damper does not carry the run (see the next page).
10. Keep clearance to combustibles around the damper of **1 in. (25 mm)** (product label) or the clearance the flue manufacturer requires, **whichever is greater**.
11. Where the damper sits in a chase or wall, install an access panel at the actuator, sized to reach the actuator and the Molex connection.
12. Route the Molex lead to the controller (Section 8).

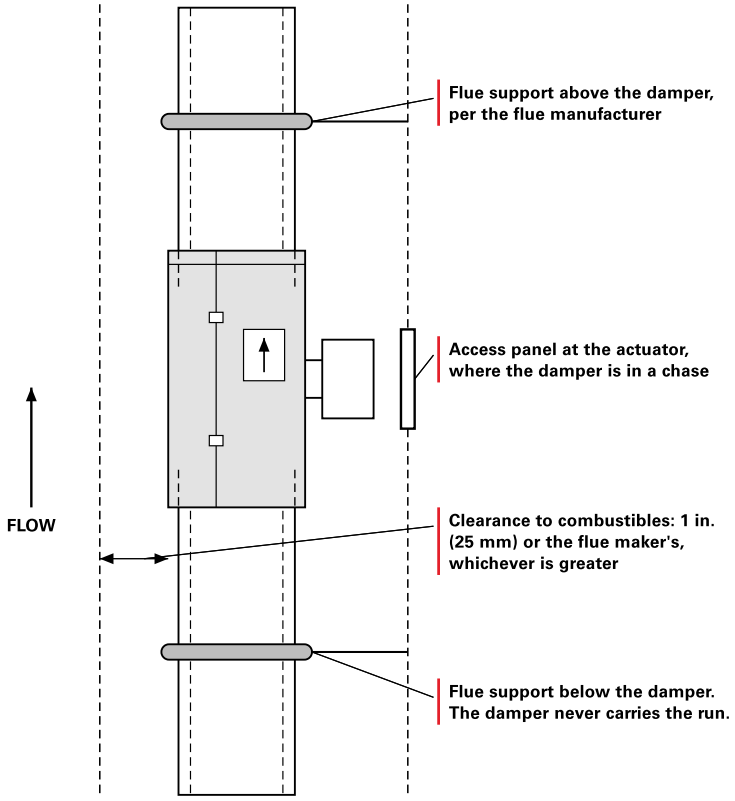
WARNING: Never operate the appliance with the heat shield open or removed. It clamps both joints and protects the actuator from flue heat.

NOTICE: Keep insulation at least 4 in. from the actuator, its bracket and the shaft.

6 Gas Inline Installation: Supporting the Run

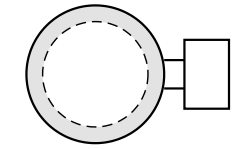
Support the flue on both sides of the inline damper, per the flue manufacturer's support spacing and instructions. The damper never carries the run. Keep clearance to combustibles around the damper of 1 in. (25 mm) or the flue manufacturer's clearance, whichever is greater, and keep the actuator reachable.

Vertical run

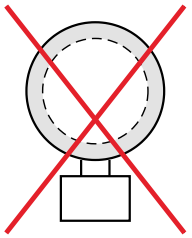


Horizontal run: actuator position

Looking down the run. The actuator goes on the side of the run, never underneath.

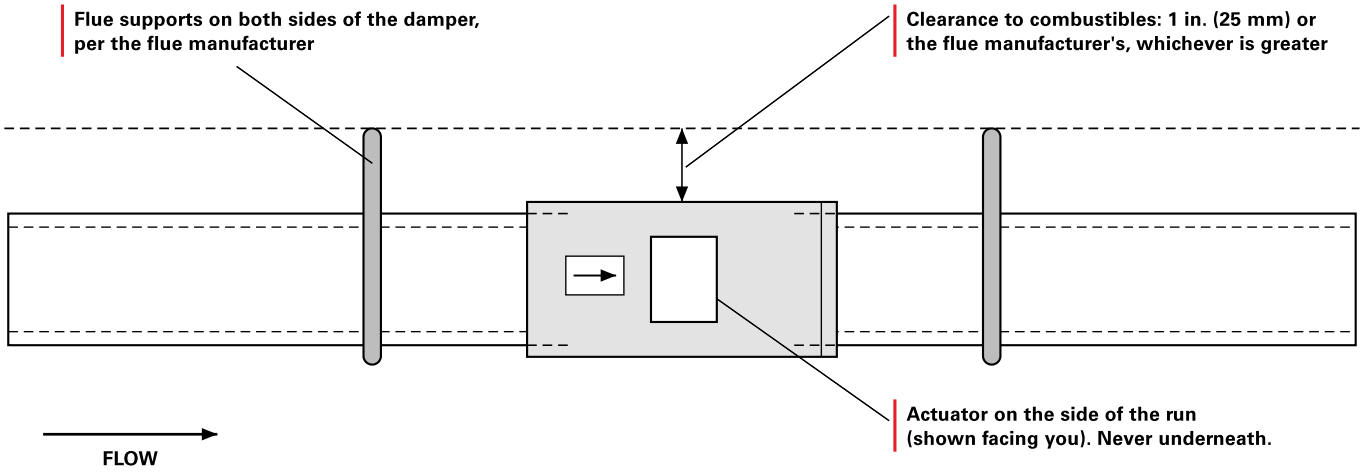


Side: correct

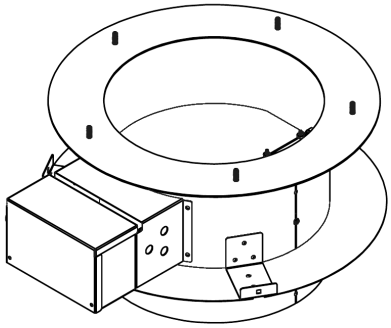


Underneath: never

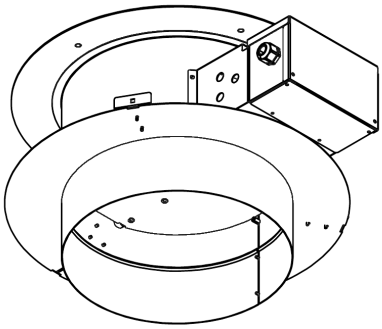
Horizontal run



7 Solid Fuel Damper Installation (XV-SFD)



Isometric (Top)



Isometric (Bottom)

Automatic solid fuel damper, XV-SFD350-13 shown. The bottom plate rests flat on the top of the flue; the flange carries the draft inducer.

1. Confirm the job: wood or other solid fuel, flue size (or DM54 flue), and the draft inducer model (or the model the flue would take, if a cap is used). Check the part number against Section 2.
2. Disconnect, lock and tag power to the controller.
3. Confirm the chimney has been inspected and is clean and sound before the damper goes on.
4. Set the damper on the top of the flue run with the flow arrow on the label pointing up. The bottom flat plate rests flat on the top of the flue. Turn it so the actuator faces the side you will reach it from for service.
5. Fasten and seal the bottom plate per Section 4.
6. Mount the draft inducer on the damper flange, per the draft inducer installation manual. Without a draft inducer, mount the X-VENTISO cap sized to the damper.
7. Route the Molex lead to the WBC, WBC-DUO or SFDC (Section 8). Keep it off hot flue surfaces and secure it so it does not move in wind.
8. Place the switch where the damper is operated from the room the appliance serves.

WARNING: The XV-SFD has no seal by design. The small gap keeps creosote from binding the blade. Do not add a gasket, sealant or tape to the blade or its seat.

WARNING: Creosote in the flue and on the damper is a fire hazard. Inspect and clean per Section 11. Never operate the appliance with a creosote-fouled flue or damper.

NOTICE: Do not remount or re-clamp the actuator. The fail-open position is set at the factory, and reversing it defeats the safety.

Clearances. Keep the clearances to combustibles the chimney and appliance listings require. The damper does not reduce any required clearance. **Ratings:** 1,000°F (538°C) continuous, 1,400°F (760°C) intermittent. **Dimensions:** submittal XV-SUB-DMP-SFD.

8 Connecting the Damper

Plug in. No field wiring. Every X-VENTISO damper, every size, connects to its controller with the same factory-made 4-pin Molex lead. There are no terminals, no wire to strip and no switch contacts to land at the damper. Power, command and proving all run through that one lead.

The actuator (24 V, 6.5 VA) is powered from the X-VENTISO controller. Plug the lead into the damper connection on the controller, per the controller installation manual.

Damper	Controller with an XV Series draft inducer	Stand-alone controller (no draft inducer)
Gas top-mount, gas inline	XV-GBC, XV-GBC-DUO, Meridian (XV-MERD-CTRL), Meridian DUO	XV-GFDC
Solid fuel	XV-WBC, XV-WBC-DUO	XV-SFDC

Lead length

- A 30 ft Molex lead is standard.
- Longer runs: one continuous custom lead (call 800.642.2920), or 20, 50 or 100 ft extensions.
- Every extension connection stays accessible. **Never in conduit or a closed wall.**
- Do not cut, splice or re-terminate the lead.
- Keep the lead off hot flue surfaces.

WARNING: Connect the damper to an X-VENTISO controller only. The controller powers the damper, proves it, and (on gas) holds the appliance off until the damper is proven open. The controller is factory-sealed: do not open it.

NOTICE: **Match the controller to the damper.** Gas dampers fail closed and the solid fuel damper fails open; each is wired for the safe position for its fuel. The 4-pin Molex is the same on both, so either damper will plug into either type of controller. Never connect a gas damper to an XV-WBC, XV-WBC-DUO or XV-SFDC, and never connect an XV-SFD to an XV-GBC, XV-GBC-DUO, Meridian or XV-GFDC. On the wrong controller the damper will not operate: a gas controller will not let the gas appliance light, and a solid fuel controller alarms and the alarm will not clear.

CAUTION: Disconnect power to the controller before connecting or disconnecting the Molex lead.

Appliance interlock and call-for-heat wiring are made at the controller, not at the damper. See the controller installation manual and the appliance manufacturer's wiring diagram.

9 Start-Up and Commissioning

Do not start up until the flue, the damper, the draft inducer or cap, and the controller are all installed. Verify travel and proving only by powered cycling, never by turning the blade by hand. Record the results in Section 14.

Gas dampers

1. Confirm the controller is a gas controller (Section 8), all Molex connections are fully seated, and the heat shield (XV-INLD) is latched.
2. Restore power to the controller and the appliance.
3. Call for heat. Confirm the damper drives fully open, the controller proves it open (and proves draft on GBC and Meridian), and only then does the appliance light.
4. End the call. Confirm the appliance shuts off and the damper closes.
5. **Power-loss test.** With the appliance running, cut power to the controller. Confirm the gas valve closes and the damper closes. Restore power and confirm the appliance does not light until the damper proves open again.
6. **Proving test.** With power off, unplug the damper lead at the controller. Restore power and call for heat. Confirm the appliance does not light. Power off, reconnect, and retest.
7. Cycle open and closed three times without a fault.

Solid fuel damper

1. Confirm the controller is a solid fuel controller (Section 8) and all Molex connections are fully seated. No fire in the appliance.
2. Restore power to the controller.
3. Switch the system on. Confirm the damper drives fully open and the controller proves it open, with no alarm.
4. Switch off. Confirm the damper closes.
5. **Alarm test.** With power off, unplug the damper lead at the controller. Restore power and switch on. Confirm the audible and visual alarm. Power off and reconnect.
6. **Power-loss test.** With the system switched on, cut power to the controller. Confirm the damper springs fully open unassisted, and the power-loss alarm sounds (WBC/WBC-DUO battery, or the SFDC UPS). Restore power.
7. Cycle three times without a fault.

Run time. Allow ~30 seconds for the damper to drive open. A gas damper closes in ~5 seconds.

DANGER: Do not clear a fault by bypassing the damper proving or the controller. Find and fix the cause (Section 12).

10 Operation

Review this section with the owner at handover.

Gas dampers

- Operation is automatic. The damper opens on every call for heat and closes when the call ends.
- If the power is out, the appliance will not light, even with battery-backup ignition. This is normal. It lights again once power returns and the damper proves open.
- If the appliance will not light with power on, call for service. Never try to open the damper by hand or bypass the controller.

Solid fuel damper

- Switch the system on **before** lighting the fire. Wait for the damper to open and prove open.
- Leave the system on for as long as there is any fire or hot coals. **Switch off only once the fire is fully out.**
- If the damper does not prove open, the controller alarms. Do not light the fire. If a fire is already burning: do not add fuel, **do not switch the system off**, let the fire burn down, ventilate the room, and call for service.
- On a power loss the damper opens by itself, and the controller sounds the power-loss alarm. The fire can burn down safely with the damper open.
- Have the chimney inspected and swept as Section 11 requires.

DANGER: If smoke is coming into the room, a smoke or carbon monoxide alarm sounds, or fire is outside the firebox: get everyone out of the building and call 911 (or your local emergency number) from outside. Do not go back in until the fire department says it is safe.

WARNING: Never burn wood, pellets, coal or any solid fuel in an appliance fitted with a gas damper.

Leave this manual with the owner. Fill in the handover lines in Section 14.

11 Annual Maintenance

Have a qualified professional inspect the damper at least once a year, at the same visit as the appliance and flue service. Disconnect, lock and tag power, and confirm the appliance is cold, before servicing. The actuator is maintenance-free: do not lubricate or disassemble it. Record every inspection in the service record. The annual inspection is required; skipping it voids the warranty.

Check	All dampers: look for	Action
Operation	Full travel open and closed on powered cycling; proves open every time	Fix the cause before returning to service (Section 12)
Blade, body, shaft	Soot, debris, corrosion, binding	Clean the body inside and out, the blade and the shaft
Molex lead and connections	Fully seated, no damage, not in conduit or a closed wall	Re-seat, replace a damaged lead or extension
Joints	Top-mount: all screws in place, sealant intact, no gaps. Inline: heat shield closed, both latches engaged	Replace missing screws and reseal per Section 4; re-close and latch the shield
Clearance and air	Nothing combustible within the required clearance; actuator open to free air	Remove

Check	Gas dampers: look for	Action
Silicone seal	Cracking, hardening, tears, gaps, or a seal pulled from its seat	Replace before returning to service; call 800.642.2920. A damaged seal points to flue gas above the damper's rating or to weather exposure: find the cause. Not covered by warranty.
Heat shield (XV-INLD)	Closed on both flue sections, no gap at the seam, both latches engaged	Re-close and latch. Replace a bent shield or a damaged latch
Interlock	Appliance does not light with the damper unplugged (Section 9, step 6)	Call 800.642.2920 if it lights

Check	Solid fuel damper: look for	Action
Creosote	Build-up on the blade, its seat, the gap and the flue	Have the chimney swept and the damper cleaned; clear the gap
Fail-open	Damper springs fully open on power loss	Call 800.642.2920 if it does not. Treat as urgent
Alarm	Audible and visual alarm on proving fault and power loss; WBC battery or SFDC UPS working	Replace the battery or UPS as the controller manual directs

Solid fuel interval: at least once a year, with the chimney inspection. Clean the damper whenever the chimney is swept.

Service record

#	Date	Findings / work done	Technician / company
1			
2			
3			
4			
5			
6			

12 Troubleshooting

Problem	Possible cause	Check
Gas appliance will not light	Damper not proving open; no power; Molex not seated; draft not proven (GBC, Meridian); a solid fuel damper (XV-SFD) connected to a gas controller	Power at the controller; Molex seated at both ends; damper travels fully open; controller status per its manual
Gas damper does not open	No power from the controller; lead damaged; obstruction; actuator failure	Lead and connections; obstruction in the damper; call 800.642.2920
Gas damper does not close	Obstruction; debris on the seal; actuator failure	Clear the blade and seal; call 800.642.2920
Flue gas or odor in the room	Joint not sealed; damper not opening fully	Shut the appliance off. Check every joint (top-mount: Section 4; inline: heat shield latched, Section 6) and damper travel before returning to service
SFD alarms on switch-on	Damper not proving open: creosote binding, obstruction, lead, actuator	Do not light. Clean, check the lead, retest; call 800.642.2920. Smoke in the room or a CO alarm: get everyone out and call 911
SFD does not open on power loss	Creosote binding, obstruction, actuator failure	Fail-open safety path. Treat as urgent. Do not use the appliance until fixed
SFD alarm on power loss does not sound	WBC battery or SFDC UPS discharged or failed	Replace per the controller manual
Damper chatters or cycles	Loose Molex connection; intermittent power	Re-seat connections; check the controller power supply
Solid fuel controller alarms and the alarm will not clear	A gas damper connected to a solid fuel controller	Do not light a fire. Connect the matching damper and controller (Section 8)

DANGER: Do not clear a position fault by bypassing the damper proving, the controller or the interlock. Doing so can let the appliance fire into a flue that is not open, or mask a fail-open failure.

Technical support: **800.642.2920**. Have the damper part number, the controller model and the commissioning record (Section 14) ready.

13 Specifications

	Gas top-mount	Gas inline	Solid fuel
Part numbers	XV-GFD, XV-TMD	XV-INLD	XV-SFD
Sizes	8, 10, 12, 13, 14, 16 in.	8, 10, 12, 13, 14, 16 in.	8 to 16 in., DM54 flue (XV350 from 12 in.)
Listing	UL 378, ETL Listed, gas appliances only	UL 378, ETL Listed, gas appliances only	UL 378, ETL Listed
Intertek control no.	4007025	4007025	4007025
Temperature rating	480°F (249°C) continuous 550°F (288°C) intermittent	480°F (249°C) continuous 550°F (288°C) intermittent	1,000°F (538°C) continuous 1,400°F (760°C) intermittent
Seal	Silicone rubber	Silicone rubber	None (deliberate gap)
Power loss	Fails closed	Fails closed	Fails open
Actuator	24 V, 6.5 VA, spring return	24 V, 6.5 VA, spring return	24 V, 6.5 VA, spring return
Run time	~30 s open; ~5 s spring closed	~30 s open; ~5 s spring closed	Spring return to open
Connection	4-pin Molex, 30 ft lead	4-pin Molex, 30 ft lead	4-pin Molex, 30 ft lead
Material	316L stainless body	316L stainless body; galvanized heat shield and slip fittings	316L stainless body
Orientation	Top of flue	Vertical or horizontal (actuator on the side)	Top of flue
Clearance to combustibles	Per chimney or flue manufacturer	1 in. (25 mm) (label), or the flue manufacturer's if greater	Per chimney and appliance listings
Weight	By size, on request	By size, on request	By size, on request
Dimensions	XV-SUB-DMP-GFD	XV-SUB-DMP-INLD	XV-SUB-DMP-SFD

Dimensioned drawings (PDF or DWG) for each size are available on request. Specifications subject to change.

14 Installation Checklist and Record

Do not skip steps. Complete before the chase is closed and the appliance is fired.

A. Application

1	Damper family matches the fuel: gas damper on gas, XV-SFD on solid fuel.	YES / NO
2	Part number matches the flue size and the draft inducer model (Section 2).	YES / NO
3	Controller matches the damper: gas damper on XV-GBC, XV-GBC-DUO, Meridian or XV-GFDC; XV-SFD on XV-WBC, XV-WBC-DUO or XV-SFDC (Section 8).	YES / NO

B. Joints and mounting

1	Flow arrow on the damper label points toward the termination.	YES / NO
2	Top-mount joint: minimum four #8 stainless screws, 1/2 in. min. shank, installed.	YES / NO
3	Top-mount joint: continuous bead of high-temp sealant.	YES / NO
4	Draft inducer on the damper flange, or X-VENTISO cap installed.	YES / NO
5	XV-INLD: heat shield closed on both flue sections, both latches engaged, no screws or sealant; actuator on the side in a horizontal run.	YES / NO
6	Clearances to combustibles kept; actuator open to free air; access panel where required.	YES / NO

C. Connection

1	Molex lead seated at the damper and the controller; extensions accessible, not in conduit or a closed wall.	YES / NO

D. Commissioning (Section 9)

1	Full travel open and closed, three cycles, no fault.	YES / NO
2	Gas: appliance lights only after the damper proves open; does not light with the damper unplugged.	YES / NO
3	Gas: on power loss, gas valve closes and damper closes.	YES / NO
4	Solid fuel: alarm on proving fault; damper springs open on power loss; power-loss alarm sounds.	YES / NO

E. Handover

1	Owner shown Section 10 and told the annual inspection is required.	YES / NO
2	This manual left with the owner.	YES / NO

Damper part no. _____ **Controller model** _____

Job / address _____ **Installer / date** _____

TECHNICAL SUPPORT **800.642.2920** x-ventiso.com