

VC Damper Installation, Operating and Maintenance Instructions



1 Health and Safety

- 1.1 Only competent personnel may carry out the work outlined within this document.
- 1.2 The wearing of appropriate Personal Protective Equipment (gloves, footwear, safety glasses etc.) is required for safe working and as the site dictates.
- 1.3 Dampers may be heavy. Large dampers will require suitable lifting and supporting equipment, with due consideration given for manual handling.
- 1.4 Dampers may close without warning. Do not introduce limbs/fingers in the path of blade travel.
- 1.5 Where dampers are only accessible with the need for additional elevation, any equipment used should be done so with due consideration to the Work at Height regulations 2005 and current site rules.
- 1.6 All work should be carried out in accordance with HSE guidelines and regulations and any specific local site rules.

2 Pre-Installation Notes

- 2.1 These instructions should be read in its entirety before installing or servicing this equipment. Improper installation, alteration or lack of servicing/maintenance may impact on the correct product function and/or warranty.
- 2.2 Ensure that all packing materials are removed, as failure to do so could result in permanent damage to this product.
- 2.3 Check the damper schedules for damper size and locations within the building.
- 2.4 Inspect the dampers for damage and record where found.
- 2.5 Ensure that all dampers are installed within systems with airflows and pressures that do not exceed the performance data within the BSB product literature.
- 2.6 Do not lift the damper by the blades. Dampers should be handled by the case only.
- 2.7 Mating ductwork connections must be square and should not deform the damper flange detail during installation. Flanged dampers must be installed square without twisting to the mating duct flange.
- 2.8 Do not force the damper into position or use fixings to apply compression or stretching.
- 2.9 Ensure that the ductwork and damper flange or spigot are carefully matched, using the appropriate sealing material.
- 2.10 The damper must be protected from damp, dirt and other foreign material prior to and post installation in readiness for hand over.
- 2.11 It is not recommended that dampers are painted or have a protective coating. Please refer to the BSB sales office for advice.
- 2.12 Screws or fasteners must not penetrate the damper case where the linkage and blade bearings could be impeded.
- 2.13 Care must be taken, that any installation material wet or dry does not come into contact with any moving parts.

3 Equipment Required

- 3.1 Equipment and tools will vary dependent upon the construction element/application that the damper is being installed within. Standard equipment that is normally used for ducted installations should suffice.
- 3.2 Access equipment as necessary
- 3.3 Temporary support equipment to retain damper in position whilst being installed.

4 Preparation for Installation

- 4.1 Before installation, the damper should be inspected to ensure that it has not been damaged and is in good condition.
- 4.2 Check damper (label) reference, and damper size.
- 4.3 Check that the damper control will be accessible once installed.
- 4.4 Ensure damper blades are horizontal once installed unless otherwise specified and quoted for.

4. Flangefit

- 4.1 Flangefit VC series dampers are designed to match the mating ductwork flange.
- 4.2 Use the four corner alignment holes to position the damper using appropriate fixings.
- 4.3 Fix the damper flange frame to the mating ductwork flange using ductwork cleats. Where intermediate fixing bolts are used, these should be in accordance with DW144.
- 4.4 Cleats are advised to be fitted as follows:
 - a) 200 – 300mm max centres for Pressure Class A
 - b) 150 – 250mm max centres for Pressure Class B and C, also allowing for a fixing within 50mm of the corner.
- 4.5 Ensure that the connecting ductwork is supported independently of the damper.

5. Spigotfit

- 5.1 Spigotfit VC series dampers are designed to be included within ductwork runs. Appropriate sealant should be applied to the damper spigot to ensure a good seal. The connecting ductwork should slip over the damper spigot and affixed with steel rivets.

6. Instruction for testing Damper

- 6.1 Once the damper has been installed, check that the blades move freely using the hand quadrant control or gripping the extended spindle by hand. The blades should move smoothly fully open to fully closed without using force. Where an actuator has been factory fitted, this will need to be electrically connected to allow testing.

7. Routine Inspection, Testing and Maintenance

- 7.1 Refer to Health and safety procedure (section 1)
- 7.2 In accordance with BS 9999 Annex W.1, inspection should be undertaken annually. Local regulations/conditions may override this with periodic inspection being carried out more frequently where corrosive or dirty conditions prevail. The maintenance log should be reviewed at each inspection and the frequency adjusted as required dependent upon findings. (BSB recommend a maximum of 1 year between inspections and to start more frequently initially and reduce frequencies only if conditions are proven to allow).
- 7.3 Remove access door or grille to reveal damper's internal elements.
- 7.4 Visually inspect the Internal damper elements for signs of corrosion, obstruction or accumulated dirt/dust.
- 7.5 If there are any obstructions or if the damper blades, case sides are dirty, they need to be cleaned.
- 7.6 Use a soft cloth with a light application of light lubricant. (Connect Duck Oil recommended).
- 7.7 There should be no more than a thin film of lubricant applied. Remove all excess lubricant. It is particularly important as excess oil will tend to collect dirt and dust which will have a negative effect on dampers remaining clean.
- 7.8 Replace access doors and/or grille.
- 7.9 Record all work that has been undertaken in the maintenance log.
- 7.10 It is important to record, and review maintenance frequency based on inspections and test history.

5 Fault finding

Symptom	Fault	Action
Damper does not open or close fully	Foreign object impeding blades	Remove item
	Build up of dirt / dust / corrosion impeding blades	Remove / clean case & blades as required.
	Blades damaged	Please contact BSB Sales Office.

Installation Check List

Damper Reference No:	Damper Location	
Damper Size:		
Width	Height	
Damper Installed By:		
<small>Print Name</small>		
Signature	Company	Date
Final Inspection By:		
<small>Print Name</small>		
Signature	Company	Date