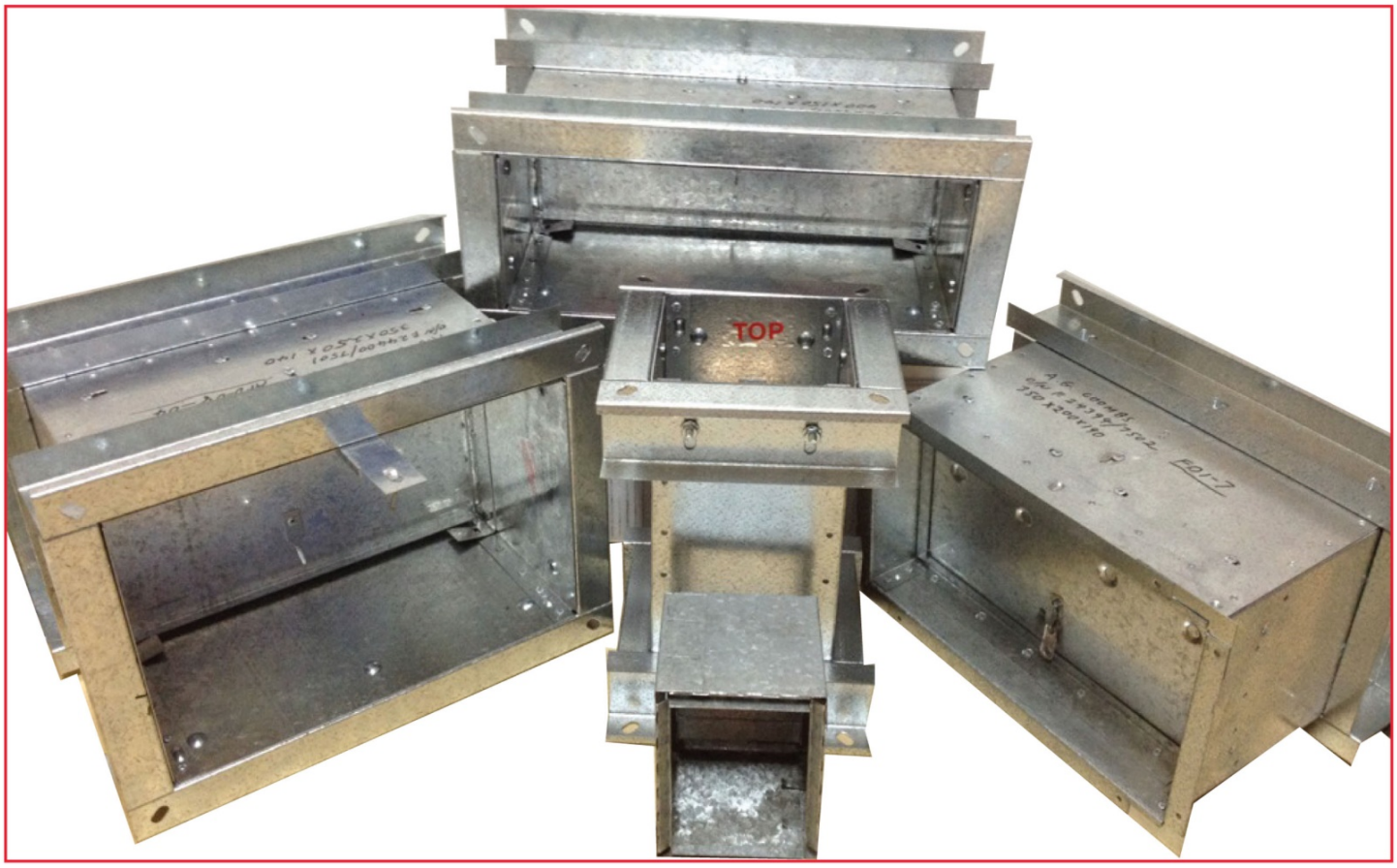
MODEL 5650 DROP LOCK DAMPER

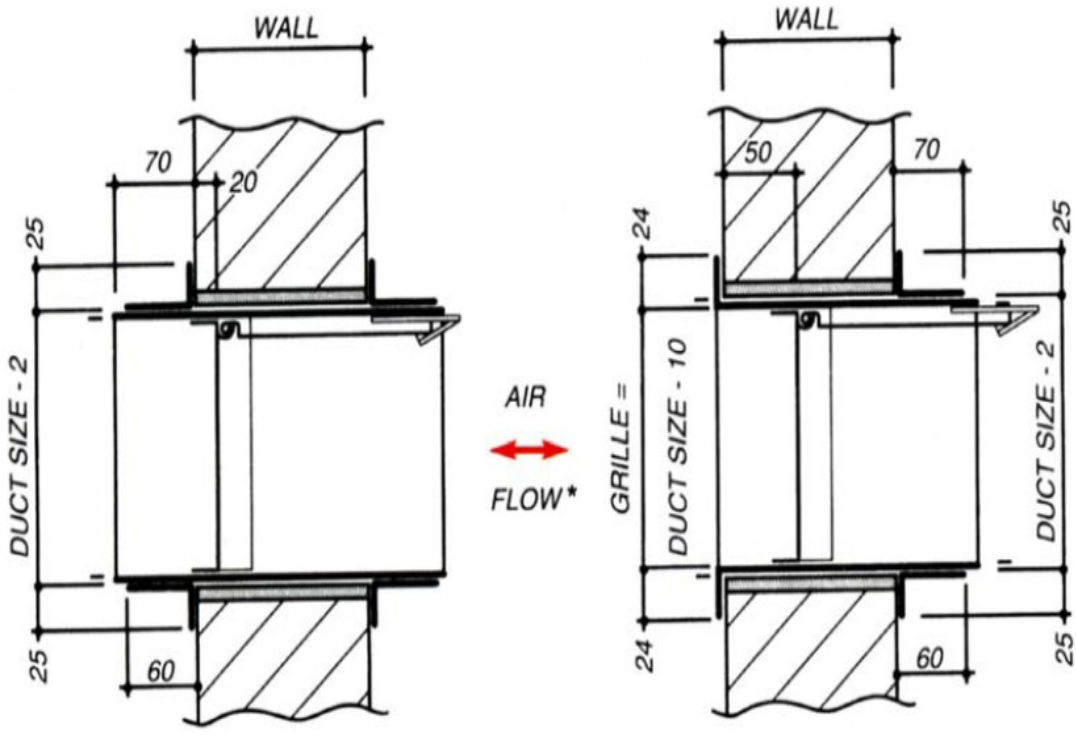
The Bullock Model 5650 Drop Lock type Fire Damper has led the market place in small damper technology for many years. It's light-weight construction and superior closing ability has made it the leading fire damper on the market.

Complying with AS1682.1-1990 and AS1668.1-1998, the model 5650 is tested and certified with an FRL -/240/- in a masonry wall concrete slab, FRL -/120/- in a steel stud plasterboard partition and a 3x16mm plasterboard partition - all masonry wall or concrete slab, FRL -/120/- in a steel stud plasterboard partition and a 3x16mm plasterboard partition - all without the need for support rods or lintel beams.



MODEL 5650 DROP LOCK DAMPER

- Australian certified to AS1682.1 - 1990 by CSIRO in:
  a) Masonry wall for 4 hours. Test #-FSP0145, FSP-0146
  b) Concrete slabs for 4 hours. Test #- FSP-0505
  c) Steel Stud Plasterboard partion for 2 hours. Test #-FSV-0100
  d) Non-loadbearing vent shaft partition (48mm) for 2 hours). Test #-FSV-0538
- Optional Airflow tested by the CSIRO for blade closure in excess of 8m/s. Test #-FS2946/1558
- Single hand reset from either side
- Approved UL33 fusible link (165°F - 74°F) in a closed hook for easy replacement (no tools)
- Light-weight construction without welding ensures the integrity of the damper's galvanised coating
- Side blade closure damper available for specific building applications
- Duct to Duct (D) and Duct to Grille (GS) configurations in sizes 100mm x 100mm up to 400mm x 250mm available at short notice



The body style 'GS' is the same outside dimensions as Style 'D'.

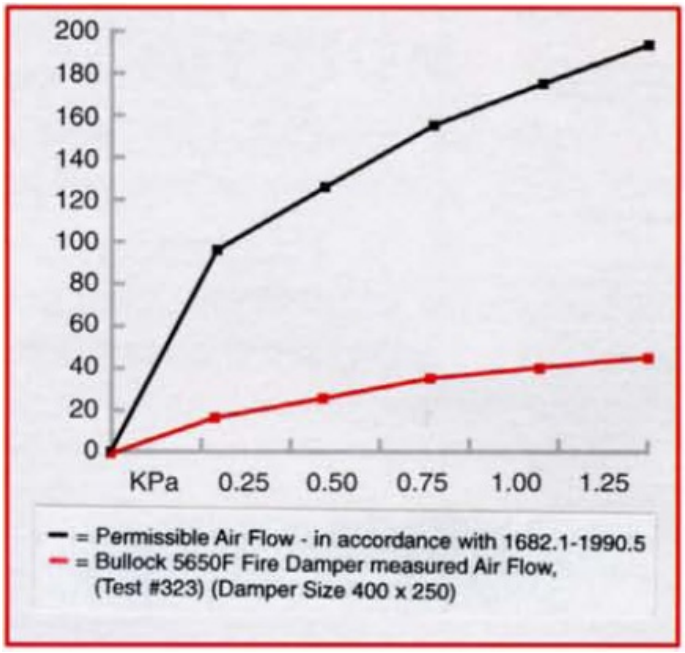
Grilles or Registers will need to fit in a clear opening 10mm less than nominal size. (Example: Nominal 200 x 200 will have a clear opening of 190 x 190)

** Refer to blade closure against the airflow test for optional airflow direction rates (page 3).*

Your local representatives details can be located at www.bullockmfg.com.au

MODEL 5650 DROP LOCK DAMPER

PERMISSIBLE AIR LEAKAGE TEST N°323



In the closed blade position, Bullock Model 5650 Drop Lock type fire damper passes the permissible air leakage test with flying colours! No other fire damper of it's kind comes close. The double action stainless steel sping with blade dimples provides a positive low leakage shut off.

BLADE CLOSURE AGAINST AIRFLOW TEST

CSIRO testing shows that the 5650 fire damper blade closes at the following. (Test #-FSZ-0522)
Size 150 x 150 = 11.0 m/s*
Size 200 x 200 = 18.0 m/s*
Size 250 x 250 = 19.0 m/s*
Size 400 x 250 = 16.5.0 m/s (double spring)*
Size 400 x 250 = 10.0 m/s (single spring)*
* Maximum speed at wich Bullock test blower was capable of as per damper size *

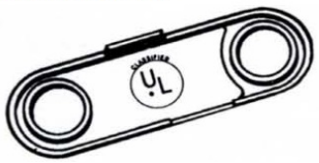
INSTALLATION

Compliance with installation is critical. Refer to separate installation instructions to suit your application, all mechanical fire dampers require expansion gaps.

MAINTENANCE

The model requires little maintenance once installed. Refer to AS1851-2012 for detailed servicing proceedures.

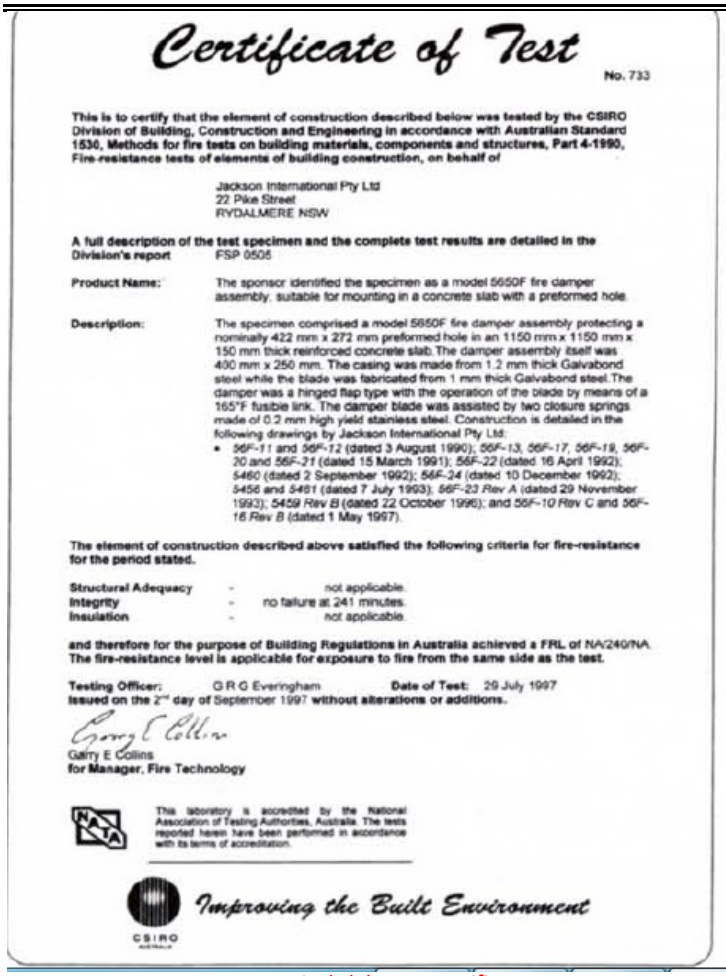
- UL33 Fusible Link



- Optional TDF/TDC Flange Connections

Your local representatives details can be located at www.bullockmfg.com.au

MODEL 5650 DROP LOCK DAMPER



Certificate of Test

No. 733

This is to certify that the element of construction described below was tested by the CSIRO Division of Building, Construction and Engineering in accordance with Australian Standard 1530, Methods for fire tests on building materials, components and structures, Part 4-1990, Fire-resistance tests of elements of building construction, on behalf of

Jackson International Pty Ltd
22 Pike Street
RYDALMERE NSW

A full description of the test specimen and the complete test results are detailed in the Division's report FSP 0505

Product Name: The sponsor identified the specimen as a model 5650F fire damper assembly, suitable for mounting in a concrete slab with a preformed hole.

Description: The specimen comprised a model 5650F fire damper assembly protecting a nominally 422 mm x 272 mm preformed hole in an 1150 mm x 1150 mm x 150 mm thick reinforced concrete slab. The damper assembly itself was 400 mm x 250 mm. The casing was made from 1.2 mm thick Galvabond steel while the blade was fabricated from 1 mm thick Galvabond steel. The damper was a hinged flap type with the operation of the blade by means of a 165°F fusible link. The damper blade was assisted by two closure springs made of 0.2 mm high yield stainless steel. Construction is detailed in the following drawings by Jackson International Pty Ltd:

- *56F-11* and *56F-12* (dated 3 August 1990); *56F-13*, *56F-17*, *56F-19*, *56F-20* and *56F-21* (dated 15 March 1991); *56F-22* (dated 16 April 1992); *5460* (dated 2 September 1992); *56F-24* (dated 10 December 1992); *5456* and *5461* (dated 7 July 1993); *56F-23 Rev A* (dated 29 November 1993); *5459 Rev B* (dated 22 October 1996); and *56F-10 Rev C* and *56F-18 Rev B* (dated 1 May 1997).

The element of construction described above satisfied the following criteria for fire-resistance for the period stated.

Structural Adequacy - not applicable.
Integrity - no failure at 241 minutes.
Insulation - not applicable.

and therefore for the purpose of Building Regulations in Australia achieved a FRL of NA/240/NA.
The fire-resistance level is applicable for exposure to fire from the same side as the test.

Testing Officer: G R G Everingham Date of Test: 29 July 1997
Issued on the 2nd day of September 1997 without alterations or additions.

Garry E Collins
for Manager, Fire Technology

This laboratory is accredited by the National Association of Testing Authorities, Australia. The tests reported herein have been performed in accordance with its terms of accreditation.

CSIRO Improving the Built Environment

A typical slab type certificate

No. 321

Certificate of Test

This is to certify that the element of construction described below was tested by the CSIRO Division of Building, Construction and Engineering in accordance with Australian Standard 1530, Methods for fire tests on building materials, components and structures Part 4-1990, Fire-resistance tests of elements of building construction on behalf of

Jackson International Pty Limited
8 Pike Street, RYDALMERE, NSW

A full description of the test specimen and the complete test results are detailed in the Division's report FSP 0146

Product Name: The sponsor identified the specimen as a model 5650F fire damper assembly mounted in a brick wall.

Description: The 400 mm wide x 250 mm high fire damper was a hinged flap type, fabricated from Galvabond steel (1.2 mm thick for the casing and 1.0 mm thick for the blade) with spring assisted closure and released by a fusible link. The damper was built into a brick wall with galvanised steel casing seals between the damper casing and the brickwork in place of compressible fibre seals. Construction is detailed in

- drawings numbered 56F10 Revision B, dated 15 March 1991, 56F-11 and 56F-12 both dated 3 August 1990, 56F-13, 56F-14, 56F-16 Revision A, 56F-17, 56F-19, 56F-20 and 56F-21 all dated 15 March 1991
- drawings A-5551-7V, dated 29 July 1984, A-5622, dated 17 March 1977 and A-5691, dated 16 September 1982, all by Prefco Products Inc.

The element of construction described above satisfied the following criteria for fire-resistance for the period stated

Structural Adequacy - not applicable
Integrity - no failure at 241 minutes
Insulation - not applicable

and therefore for the purpose of Building Regulations in Australia achieved a FRL of NA/240/NA.

The rating applies to elements of the same construction as the specimen and exposed to fire from either side.

Testing Officer: L B Retson Date of Test: 4 July 1991

Issued on the 12th day of August 1991 without alterations or additions

R J Dayeh
for Manager, Fire Technology.
Division of Building, Construction and Engineering
PO Box 310 NORTH RYDE NSW 2113 Telephone (02) 888 8686 Fax (02) 888 9335

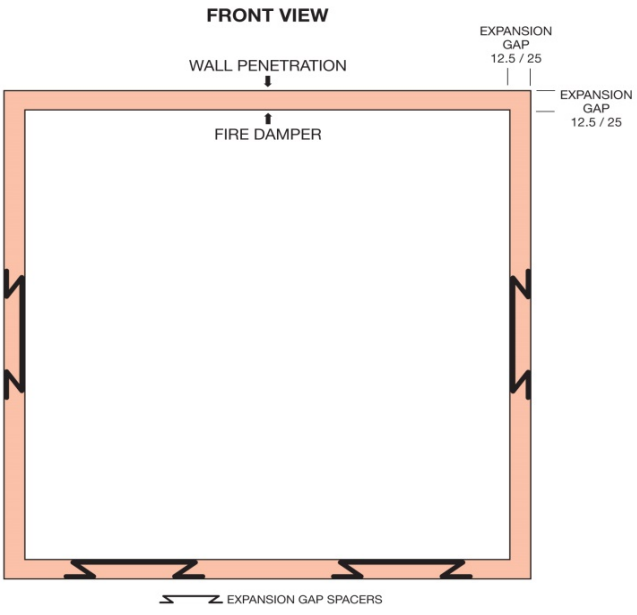
CSIRO

A typical wall type certificate

METAL EXPANSION GAP SPACERS

Metal gap spacers allow the damper to be installed insitu with a controlled expansion gap.

- No installation costs.
- No hazardous fibers.
- Factory set expansion gap.



Your local representatives details can be located at www.bullockmfg.com.au