

LR Damper Building Product Information Sheet

Version 1.1 – Issued 20/09/24

Product

Product name	LR Damper
Product type	Fire Damper, Smoke Damper, Fire and Smoke Damper
Product Identifiers	LRF/LRS/LRFS

Product description and intended use

- The LR is a line of mechanical fire, smoke, or fire and smoke dampers designed for use within ventilation systems to maintain the integrity of a fire barrier. The LR can offer a fire integrity rating of up to four hours. The LR can also maintain smoke integrity of up to four hours with a smoke leakage below 50l/s. The LR has no structural adequacy nor insulation ratings.
- Seven diameters are available: 100, 125, 150, 200, 250, 300 and 350mm. Diameters 100-250 offer both fire and smoke integrity for up to 4 hours. Diameters 300 and 350 offer fire and smoke integrity for up to 90 minutes.
- LR dampers are fabricated from galvanised steel and come with mounting flanges, jubilee clip, and an additional heatshield only for drywall and timber framed floor installations.
- To ensure compliance the LR must be installed exactly as per the tested and assessed details. If this is not possible then a fire engineer will be required to make an assessment as to whether the installation is an acceptable alternative solution.
- The basic construction of the LR is consistent throughout each sub model with slight design variations. The base LRF model includes a mechanical fusible link whereas the fire and smoke variant includes an actuator and thermal sensor.
- Actuators are available in both 24V and 230V models.
- Both standard and extended sleeve lengths are available. The standard sleeve suits fire/smoke barrier penetrations up to 190mm deep and the extended sleeve suits fire/smoke barrier penetrations up to 295mm deep.

Relevant NZBC clauses

- Clause B2 Durability: Performance B2.3.1 (c) 5 Years
- Clause C3 Fire Affecting Areas Beyond the Fire Source: Functional C3.1
- Clause C4 Movement to Place of Safety: Functional C4.2
- Clause H1 Energy Efficiency: Performance H1.3.6

Contributions to compliance with NZBC clauses

- **B2:** The lifespan of the LR will vary based on the environment it is installed in. For a standard HVAC installation, the LR would provide a durability of a minimum of 5 years. Excessively corrosive or harmful environments or exposure to fire, heat or water will reduce the lifespan of the LR.
- **C/AS2 2.3.13, C 4.16.12 (b):** The LR does not have an insulation rating and only offers a fire integrity rating. Insulation ratings are not required for fire dampers given either:
 - Sprinklers are installed throughout the building in accordance with either NZS4541 or NZS4515, or

- There is no combustible material placed closer than 300mm to the fire damper or the air duct.
- **C/AS2 4.7.4 (a, c):** Theatres with an occupant load of more than 1000 are required to include heat sensing devices within roof vents that are electronically interlocked with all fire dampers penetrating the proscenium wall. The LRFS model can be interlocked with heat sensing devices supplied by others.
- **C/AS2 4.11.4 (d):** Fire dampers serving ventilation ducts, which comply with the requirements for fire resisting closures, are an exception that is allowed within protected shafts. The LR, given that it is installed correctly, is suitable for use within a duct penetrating a protected shaft such as a lift shaft.
- **C/AS2 4.16.12 (a):** The LR is compliant with both AS1682.1 and AS1682.2.
- **C/AS2 4.16.12 (c):** The LR must be installed as per installation details with either an access panel or otherwise access on one side of the damper. The test latches are designed so the damper can be easily tested and reset when required.
- **C/AS2 4.16.13:** Where evacuation is delayed, ventilation ducts that pass through a fire separation to a place of safety within the building must be provided with a smoke damper.
- **C/AS2 4.16.14:** The LR acting as a smoke or fire and smoke damper complies with AS1682.1 and AS1682.2 and can be actuated on alarm activation.
- **H1:** When acting as a fire damper and installed in a commercial building the LR must be designed to have a maximum pressure drop when fully open of 15 Pa.

Relevant standards

- LR dampers are designed to and compliant with AS1682.1 and AS1682.2.
- LR dampers are tested to AS1530.4-2014 and AS1530.7-2007.
- LR should be maintained to AS1851-2012.

Conditions and limitations of use

- The LR should be specified by a suitably qualified mechanical or fire engineer based on the integrity requirements of the fire barrier.
- The LR should be installed by a suitably qualified and trained tradesperson. Holyoake representatives are available to provide installation training upon request.
- The LR must be installed exactly as per the tested or assessed detail or have its installation specifically signed off by a fire engineer.
- Penetrations through fire rated building elements with kitchen extract systems shall not have fire dampers installed as per AS1668.1-2015 section 3.3.3 (b) & (c). These openings must be protected from fire by other means.

Warnings and bans

The LR is **not** subject to a warning or ban under section 26 of the Building Act 2004.

Installation details and product datasheet

The LR product datasheet and installation details for multiple different wall or floor construction types can be found on our [website](#).

Maintenance requirements

The LR should be inspected and subjected to a routine annual service according to AS1851-2012. Inspect 20% of the fire dampers in a building annually, such that at the end of the fifth year all dampers have been inspected. Where a significant number of dampers fail, are unable to close, corroded, or otherwise incapable of performing satisfactorily, all dampers shall be inspected within the next twelve-month period. A failure rate of 10% of the 20% annually tested shall be regarded as significant.

Manufacturer details

Manufacture location	China
Designed and imported by	Price Holyoake (NZ) Ltd T/A Holyoake Air Management Solutions by Price
Importer NZBN	9429048831215
Importer website	Holyoake.com
Auckland address for service	67 Greenmount Drive, East Tamaki, Auckland 2013
Auckland office email	Auckland@holyoake.com
Auckland office phone number	(09) 274 4144
Wellington address for service	89 Main Road, Tawa, Wellington 5028
Wellington office email	Wellington@holyoake.com
Wellington office phone number	(04) 232 2722
Christchurch address for service	81 Treffers Road, Wigram, Christchurch 8042
Christchurch office email	Christchurch@holyoake.com
Christchurch office phone number	(03) 366 6545

Declaration

Price Holyoake (NZ) Ltd has provided this declaration to satisfy the provisions of Schedule 1(d) of the Building (Building Product Information Requirements) Regulations 2022.

Version History

Version number	Written by	Date issued	Changes from previous document
V1.0	ST	07/06/24	First issue
V1.1	ST	20/09/24	Updated Christchurch Address and website URL