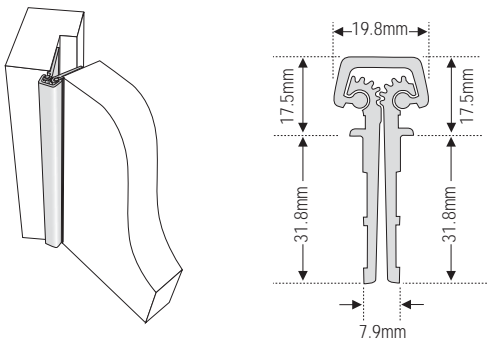


## Continuous Geared Hinges

### REL.FMFOI - Full Mortice Flanged Continuous Hinge

This hinge is designed primarily for new build situations but is suitable equally for retrofit situations where an upgrade is desirable. Full mortice flange type hinges may be recessed, semi recessed or surface mounted, the sectional drawing below shows a surface mounted installation where no timber has been removed from either the door or the frame.

When used in any of these applications the face of the door leaf is positioned to be flush with the face of the frame nosing. Where required, (e.g when using bolted assembly hollow metal frames) short leaf inset hinges (REL.FMF06) with offset flanges may be used. See [www.relcross.co.uk](http://www.relcross.co.uk) for more information and variants of this application.

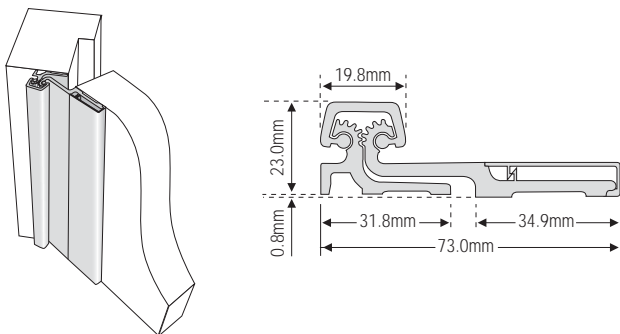


The flange detail used with some hinge designs assists with the accurate location of the hinge and provides for enhanced security and weather sealing performances. Intumescent sealing must be used when fitting these hinges to timber fire rated door sets. Please refer to the sales office for full details of intumescent requirements.

### REL.FFO2 - Full Surface Continuous Hinge

Designed mainly for upgrading existing doorsets. Hinge leaves are applied to the exposed surfaces of the door and the frame.

Full surface hinges are fitted to the face of the door leaf and the frame allowing for the lateral adjustment of doors.



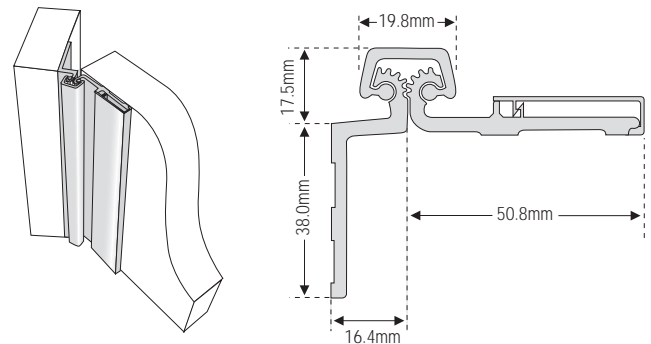
These hinge designs allow for unbroken sealing to the door leaf edges and / or the frame reveal. See [www.relcross.co.uk](http://www.relcross.co.uk) for more information and variants of this application.

### REL.HMSOI - Half Mortice (Safety) Continuous Hinge

The standard half mortice option is designed specifically for upgrading existing doorsets although it can be used where a through bolt fixing is desirable on new installations. The safety version (shown here) is ideal for new build situations where young fingers are at risk.

One hinge leaf is applied to the exposed surface of the door and the frame leaf is applied to the concealed surface of the frame.

Half mortice hinges provide for traditional fixing to timber or metal frames with face fixing through the door leaf. This design allows for extensive lateral adjustment of the door leaf to provide for optimum setting of operating tolerances. The half mortice design is recommended for use with some mineral core door leaf constructions that provide for limited edge screw fixings. The design will also allow for unbroken sealing systems fixed to the door leaf edges.



Half mortice hinges are available as a safety hinge when used without a doorstop to the hanging jamb. The same design of hinge can be used with a frame incorporating a door stop with the door leaf repositioned to suit. This allows for the door leaf to be set back within the frame partition thickness.

A further half mortice design option provides for an extended throw facility if required. See [www.relcross.co.uk](http://www.relcross.co.uk) for more information and variants of this application.

### Continuous Geared Hinges - Load Bearing Capacity

	Hinge Length	No. of Bearings	Max Door Weight* kg
Medium Duty (O)	2108mm	14	127
	2159mm	14	127
	2413mm	16	145
Heavy Duty (HD)	3048mm	20	182
	2108mm	27	245
	2159mm	27	245
	2413mm	31	281
	3048mm	39	354

\* Adjusted

## **Continuous Hinges –**

### **Stability & Durability**

The continuous hinge design provides the following stability and durability features:

- Template/jig drilled fixing holes allow off-site preparation of the door and frame
- Multiple fixings that distribute load stresses uniformly along the full length of the door and frame
- Adjusted door weights (a function of the door's height) up to 354 kilos
- Independent cycle test performance up to 2.5M cycles (reduces the adjusted load bearing capacity to 68 kilos)
- Assistance with the alignment of doors and frames reducing the risk of binding and consequent wear resulting in the virtual elimination of door sag

### **Vanity, Security & Safety**

The full height continuous intermeshing gear with capping piece design eliminates gaps that occur between the door leaf and the frame when doors are hung on traditional hinges. This sight proof feature provides a privacy function desirable for both vanity and security purposes.

Various 'Safety' versions of the hinge can be used without a frame door stop providing sufficient space between the frame mounted hinge blade and the door mounted hinge blade to prevent entrapment of young fingers. The slightly rounded 'soft-edge' profile of the hinge knuckle reduces the risk of injury in the event of impact with the hinge.

Hinges can be modified to include the 'anti-ligature' variant that limits the risk of self-harm when used on projects where such considerations might apply.

### **Disability**

All our continuous hinge designs can incorporate a number of features that are of assistance to the physically and visually impaired. The smooth low operating force feature, a function of the self lubricating properties of the patented bearing system, makes this hinge an ideal choice where a low coefficient of friction is a requirement, i.e. doors on accessible routes.

Additionally, the full height capping piece (or knuckle) can be finished to contrast with the door leaf and the frame to provide a navigational reference for users with impaired vision.

### **Acoustics, Smoke & Weather Sealing**

The full height continuous intermeshing gear with capping piece design restricts the flow of air at the hanging stiles contributing to the acoustic, smoke and weather sealing performance of the door set.

Full surface versions provide 'clean' uninterrupted edges at the heel of the door and at the frame reveal. This allows the installation of a continuous sealing system that may be otherwise interrupted by the use of traditional full mortice hinges and other door hardware.