

The THERMALUX

INSULATED SECTIONAL OVERHEAD DOOR

DESCRIPTION

A modern and attractive, up and over, panel door, suitable for meeting today's high design standards. The door is manufactured from insulation filled steel panels suspended from cables, running on galvanised steel tracks with seals to the top, bottom and sides of the full opening to protect against the elements. Each door is counterbalanced by means of helical springs at high level and can be manually or electrically operated. The door is ideally suited for installation direct on to structural steelwork, but can be fitted to masonry provided a suitable timber sub-frame is provided (see Opening Requirements overleaf).

PANELS

Door face is formed from horizontally mounted, plastisol coated, galvanised sheet steel panels, filled with CFC FREE insulation, with a thermal break between panels. Please see back of brochure for full details of the door panel construction.

END CASSETTES & ROLLERS

Each end of a panel is fitted with punched, galvanised steel, end caps to accept side roller carriers and rollers. As standard the rollers consist of a nylon running wheel with bearing on a steel shaft. Roller carriers are galvanised steel and allow the roller to float as the door is operated.

HINGES

Each end of a door panel is attached to the adjacent panels by means of a combination hinge/roller carrier. Intermediate hinges are fitted along the length of the join at maximum 1000mm centres.

TRACKS

Side tracks are manufactured from cold rolled, 2mm thick, galvanised steel formed in a 'J' profile to retain the rollers. Bends are preformed in pairs to ensure smooth operation. The tracks are welded to galvanised steel, formed vertical angles for securing to the opening structure and are suspended from the roof structure by suitable fixing hangers. Spring buffers are fitted to the back end of the tracks to ensure suspension cables remain under tension when the door is fully open.

WEATHER SEALS

Flexible rubber seals are fitted to all four sides of the door. The top seal compresses against the lintel. The side seals are fitted to the jamb and compress against the door panels. The bottom seal compresses against the opening threshold. **We recommend that the threshold be formed with an incline away from the opening to allow run-off and prevent pooling.**



Sectional Overhead Door



Shootbolt with Isolator



Cable Break Device

SPRING ASSEMBLY

Counter balancing of the door is achieved by means of helical torsion springs, mounted on a steel shaft with bearings supported in suitable galvanised steel plates secured to the opening structure. Please see Opening Requirements overleaf for details of steel work recommended. The number of springs and bearing plates varies according to the size of door and track arrangement. Suspension cables run from grooved aluminium cable drums fitted to each end of the shaft

CABLE BREAK SAFETY DEVICE

As standard a cable break safety device is used in place of the normal bottom corner brackets. In the unlikely event that a cable should break or lose tension, a brake engages onto the track preventing the door from falling out of control.



EMMERSON INDUSTRIAL DOORS LIMITED

Enterprise Way, Sherburn in Elmet, Leeds. LS25 6NA Tel: 01977 685566 Fax: 01977 681981

INSULATED PANEL

PANEL FINISH

EXTERIOR SKIN – made from 0.5mm thick HP200 Plastisol, Pvf2 or powder coated galvanised steel sheet. Other 'special' exterior finishes are available on request.

INTERIOR SKIN – made from stucco embossed, white, polyester coated 0.4mm thick galvanised steel sheet. Other interior skin finishes are available, eg. Plastisol.

Both exterior and interior skins are made from pre-hot-dipped galvanised steel sheet to BS EN 10147

PANEL DIMENSIONS

Height (standard)	-	-	530mm
Nominal Thickness	-	-	50mm
Maximum Width	-	-	7800mm
Nominal Weight	-	-	7.00kg / linear metre 13.2kg / square metre

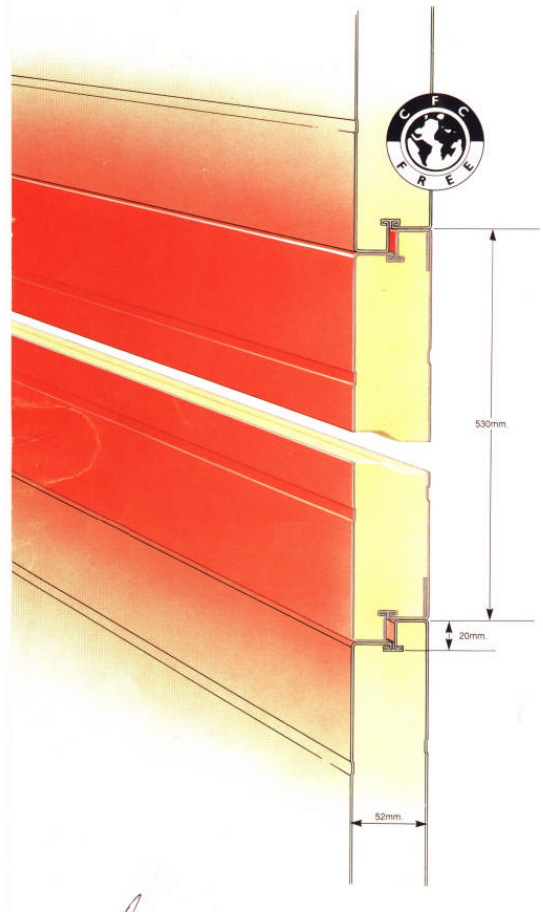
INSULATION PROPERTIES

50mm thick rigid CFC free (ODP zero) polyurethane foam.

Density	-	-	45 kg/m ³
'U' Value	-	-	0.38 W/m ² K
Average Sound Reduction Index (SRI)	-	-	23 dB

FIRE PROTECTION

Panel facing materials achieve a Class 1 surface spread of flame to BS 476 Part 7 1987 (1993) and Class 0 as defined by the Building Regulations 1985



OPTIONAL EXTRAS

WINDOWS / VISION PANELS

Various square cornered, double glazed, acrylic vision panels are available factory fitted. Standard frame size: 638 x 333mm.

SPRING BREAK SAFETY DEVICE

A spring break safety device can be fitted to the shaft of the spring assembly. In the unlikely event that a spring should fail, a brake engages on the shaft and prevents the door from falling out of control.

PERSONNEL / WICKET DOOR

For convenience, where no other means of external access is available, a wicket door can be fitted. The door opens outwards and is fitted centrally, complete with door closer and cylinder lock.

TRACK ARRANGEMENTS

Various track arrangements are available to suit different requirements and building designs (see overleaf). **Unless otherwise specified in our quotation, the Standard Lift arrangement will be installed.**

OPERATION

MANUAL OPERATION

Doors up to 3000mm x 3000mm can be installed with a foot-step handle and pull rope for simple push up / pull down operation. Otherwise manual operation is by means of a geared hoist with endless hand chain.

ELECTRICAL OPERATION

Electrical operation can be provided by means of a 415v three phase or 240v single phase motor with integral limit switches to control the travel of the door, and open/close operation by means of a push button control panel. A manual override device is included for operation in the event of a power failure.

Options

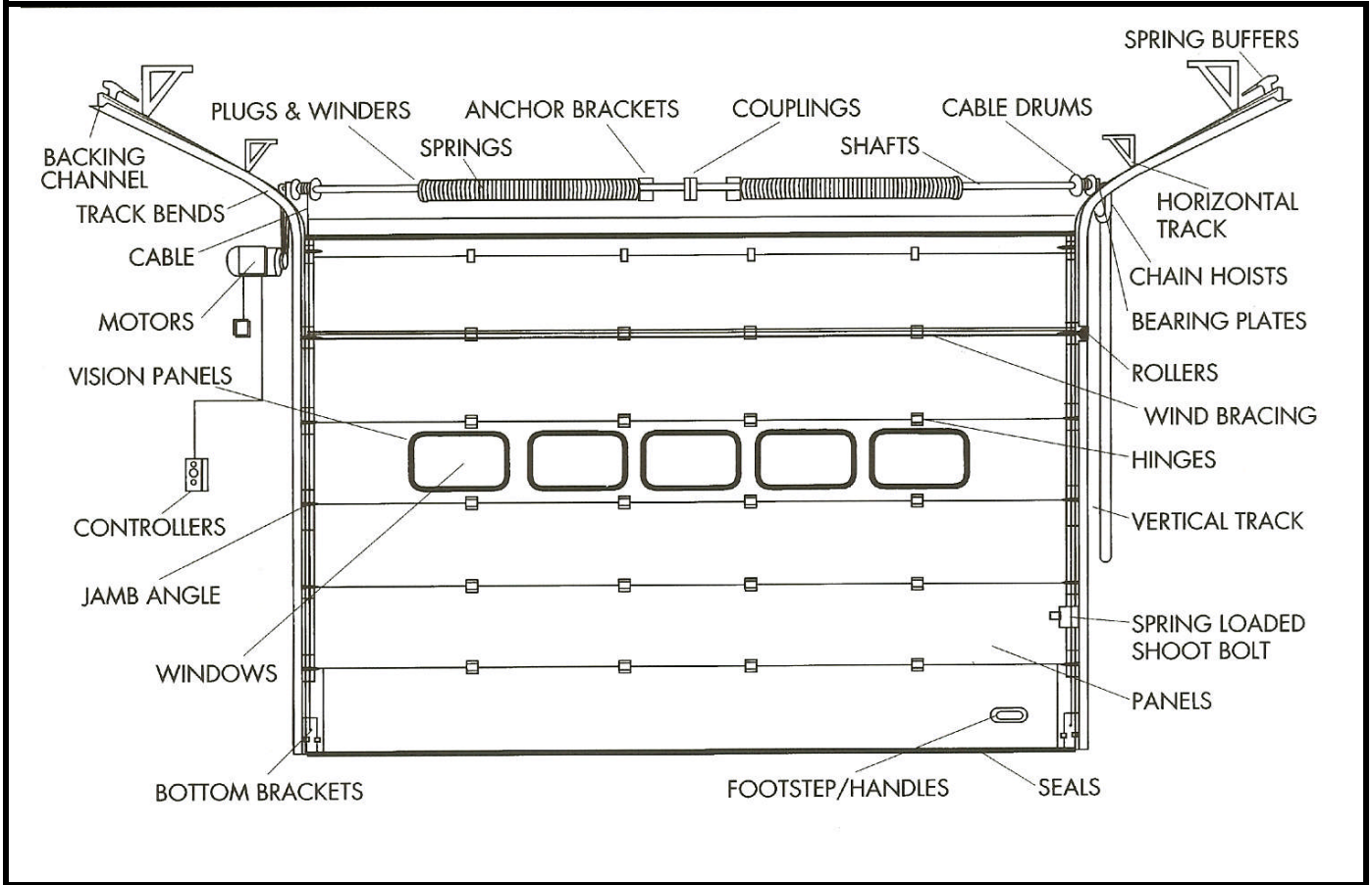
A key operated switch can be supplied for external operation or to restrict access to authorised personnel. A variety of safety facilities and other equipment, including remote control, are also available. Electrical interlock devices are also available to prevent the door from being operated whilst still locked or while a wicket door is open.



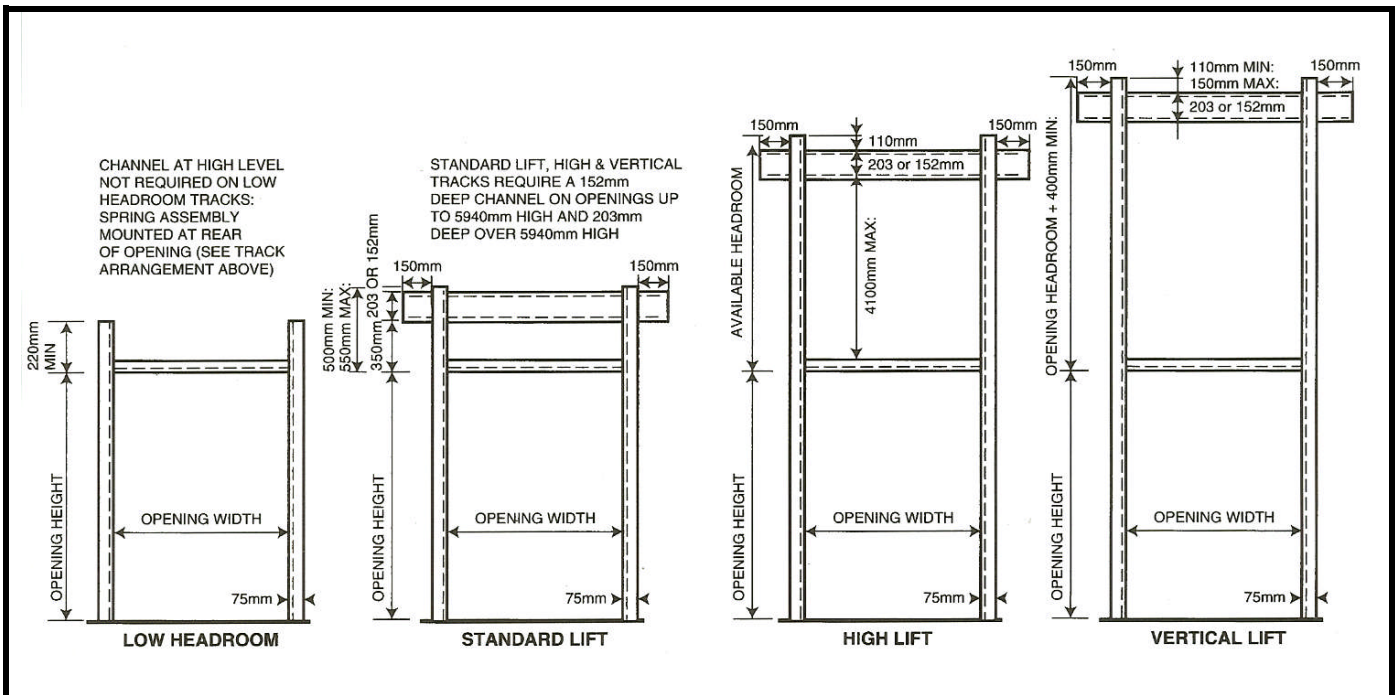
EMMERSON INDUSTRIAL DOORS LIMITED

Enterprise Way, Sherburn in Elmet, Leeds. LS25 6NA Tel: 01977 685566 Fax: 01977 681981

TYPICAL DOOR ASSEMBLY



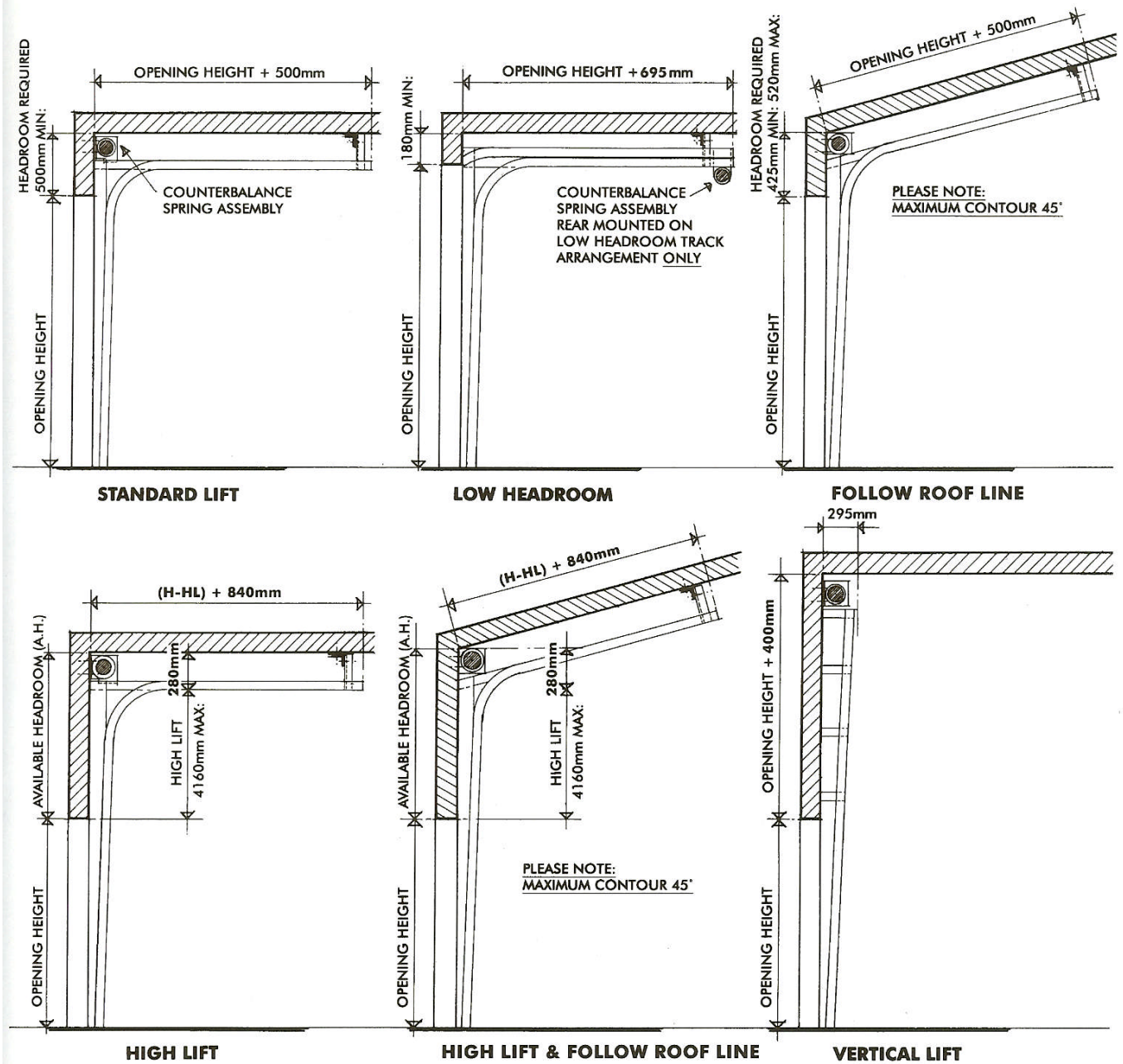
OPENING REQUIREMENTS



EMMERSON INDUSTRIAL DOORS LIMITED

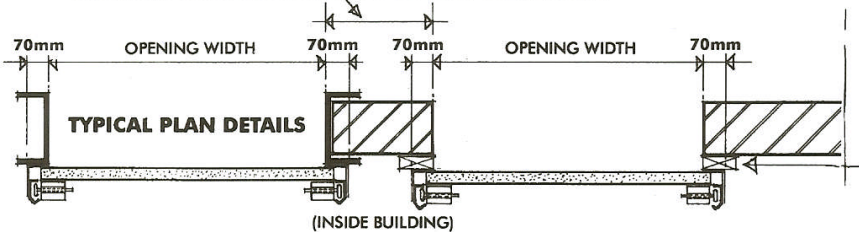
Enterprise Way, Sherburn in Elmet, Leeds. LS25 6NA Tel: 01977 685566 Fax: 01977 681981

TRACK ARRANGEMENTS & SPACE REQUIREMENTS



PLEASE NOTE: MINIMUM CLEARANCE BETWEEN ADJACENT DOORS IS DEPENDENT ON TRACK ARRANGEMENT AND POSITION OF HANDCHAIN OR DRIVE MOTOR. PLEASE CONSULT US FOR ACCURATE DIMENSIONS.

PLEASE ENSURE ALL OPENINGS ARE FORMED PLUMB AND SQUARE AND THAT ALL INTERNAL FACES ARE FLUSH.



DOORS THAT ARE INSTALLED DIRECTLY ON TO STEELWORK OPENINGS PROVIDE A GOOD WEATHER SEAL ALL ROUND. ON UNEVEN MASONRY OPENINGS IT MAY BE NECESSARY FOR CLIENTS TO PROVIDE A 125 x 50mm TIMBER SUB-FRAME IN ORDER TO GIVE A FLAT, EVEN FIXING SURFACE.

GENERAL NOTES:

Hand chain operation or electrical drive motors may be positioned on either the right or left hand side of the opening, to suit customer requirements.

When minimum headroom is not available or where there are obstructions adjacent to the door opening, it may be possible to amend the track details or re-position the counterbalance springs at high level to suit. Please contact us for assistance and further information.



EMMERSON INDUSTRIAL DOORS LIMITED

Enterprise Way, Sherburn in Elmet, Leeds. LS25 6NA Tel: 01977 685566 Fax: 01977 681981