

**Are spring hinges recommended on
self closing fire doors?**

YES!

**LIOBEX DOUBLE ACTION
SPRING HINGES**



Fire Tested
BS EN 1634-1:2008
Report No.
324188

The D&E Liobex compact range of spring hinges have an enclosed body to reduce the risk of vandalism. This vandal resistant fixing method on the barrels, makes these hinges suitable for environments where security and reliability are essential. Independently tested by Exova Warringtonfire to BS EN 1634-1:2008 Report No. 324188

DELDA06 EI30	150mm / 6" d/a spring hinge	silver
DELDA06SS EI30	150mm / 6" d/a spring hinge	sat. stainless steel

Door width:	932mm
Door thickness:	25 - 44mm
Max. door weight:	42Kgs
Packaging:	3 hinges 1 intumescent kit

DELDA08 EI60	200mm / 8" d/a spring hinge	silver
DELDA08SS EI60	200mm / 8" d/a spring hinge	sat. stainless steel

Door width:	1000mm
Door thickness:	35 - 55mm
Max. door weight:	55Kgs
Packaging:	1pr of hinges 1 intumescent kit

Other finishes available to special order.

* Illustration shows DELDA06 EI30



Technical Specifications

Single Action Spring Hinge

Characteristics common to all the Liobex hinge models

	Model No.	LSA03	LSA04	LSA05	LSA06	LSA07	LSA08
Height of Leaf	mm	75	100	125	150	175	200
	inch	3	4	5	6	7	8
To suit door thickness	mm	20 - 25	21 - 30	25 - 35	25 - 44	33 - 50	35 - 55
To suit max door width	mm	650	700	780	850	920	1000

Characteristics specific to the Liobex Compact range

Weight of the hinge - pair	Kg	0.390	0.580	0.850	1.290	1.765	2.530
Max torque at 90° - per hinge	daN	0.250	0.350	0.500	0.700	0.850	1.200
Max weight of door - per pair	Kg	10	15	25	35	45	55
Fixing screws recommended - Countersunk Screw		4 x 20	4 x 20	4 x 25	4.5 x 25	6 x 30	6 x 30

Double Action Spring Hinge



Characteristics common to all the Liobex hinge models

	Model No.	LDA03	LDA04	LDA05	LDA06	LDA07	LDA08
Height of Leaf	mm	75	100	125	150	175	200
	inch	3	4	5	6	7	8
To suit door thickness	mm	20 - 25	21 - 30	25 - 35	25 - 44	33 - 50	35 - 55
To suit max door width	mm	650	700	780	850	920	1000

Characteristics specific to the Liobex Compact range

Weight of the hinge - pair	Kg	0.75	1.120	1.620	2.510	3.670	4.850
Max torque at 90° - per hinge	daN	0.250	0.350	0.500	0.700	0.850	1.200
Max weight of door - per pair	Kg	10	15	25	35	45	55
Fixing screws recommended - Countersunk Screw		4 x 20	4 x 20	4 x 25	4.5 x 25	6 x 30	6 x 30

Characteristics specific to Liobex FIRE RATED MODELS

	Model No.	LDA06 EI30 	LDA08 EI60 
Height of Leaf	mm	150	200
	inch	6	8
To suit door thickness	mm	25 - 44	35 - 55
To suit max door width	mm	932	1000
Max weight of door - per kit	Kg	42	55
Fixing screws recommended - Countersunk Screw		4.5 x 25	6 x 30

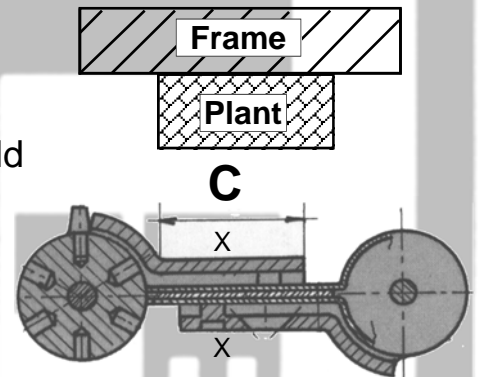
D&E Architectural Hardware Ltd

LIOBEX Double Action Spring Hinges

Installation Instructions

Installation of Liobex double action spring hinges

To install Liobex double action spring hinges correctly it is necessary to have or fix a plant down the hanging frame. Ideally the width of the plant should be the same dimension as the thickness of the door. The thickness of the plant should be sufficient to allow the leaf of the hinge to rotate freely around the knuckle, after the lipped face (C) has been mortised in. The other lipped face should be mortised into the door, ensuring that both leafs are free to rotate and that the standard door plant clearance is maintained.



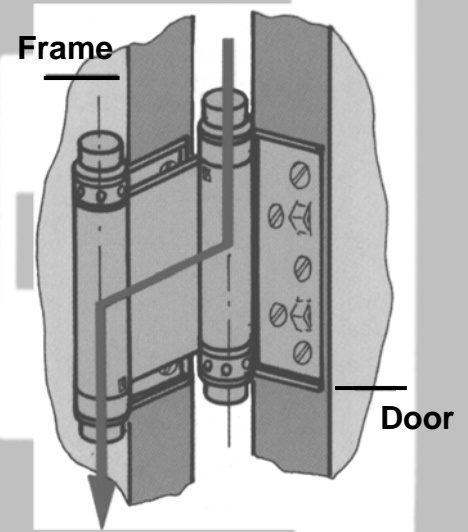
Where applicable the capstan should be located at the top on the plant, and at the bottom on the door. This configuration will ensure optimum efficiency and minimum wear. Hinges where the capstans are located at the same end, should be installed with the capstans at the top.

Normal installation should be 250mm from the top and bottom of the door. In the event of a door being oversize, a third hinge may be fitted 100mm below the top hinge. Care must be taken to ensure that the centre line of the hinges is in alignment.

On fire rated 'EI 30' & 'EI 60' models the supplied intumescent must be stuck to the outer edge (X) covering area 'C' of each hinge leaf and appropriately trimmed. Failure to install the supplied intumescent will invalidate the Fire Certificate!

Adjustment

Normal operation of the hinge is achieved by tightening both capstans on each hinge and inserting the pins provided. Normally the top hinge (s) will not require more than three holes, and the bottom hinge two holes.



DO NOT OVERTIGHTEN THE CAPSTANS

Maintenance

Liobex Spring Hinges are lubricated before despatch. We recommend annual lubrication to maintain trouble free operation.