

# LOAD CAPACITY TABLE

## Hinges IN230 for doors up to 132 lbs (60 kg.)

The loading capacity of the hinges is a data that cannot be determined in an absolute manner, since not all the elements that constitute doors and windows can always be determined in advance.

The main variables are:

- 1) dimensions of the shutter;
- 2) weight of the shutter;
- 3) number of hinges;
- 4) position of the hinges;
- 5) type and quality of the frame material. For example: the presence of knots in wood may jeopardize the grip of the hinge or in the case of PVC frames the presence and the shape of the internal metal reinforcement may affect the loading capacity of the hinges;
- 6) accuracy, precision and experience in the assembly. For example: installing the male more than 1/4" (6 mm) away from the frame or a thread not completely screwed, can compromise the proper functioning of the hinges;
- 7) position and frequency of use of the window/door.

The following table has been defined taking into consideration:

1) the information provided by the European Norm UNI EN 1935:2002.

2) the tests performed on the hinges.

In particular, norm 1935:2002 suggests to load a hinge with 1/3 of the declared weight in the CE certificate or declaration of performance, thus recommends the use of three hinges per shutter, praxis OTLAV agrees with, since it makes the door/window more stable.

The regulations 1935:2002 also determines that in the case of doors or windows of remarkable width, it is necessary to apply a "coefficient of increase of the shutter mass", which determines the decrease of the loading capacity of the hinges.

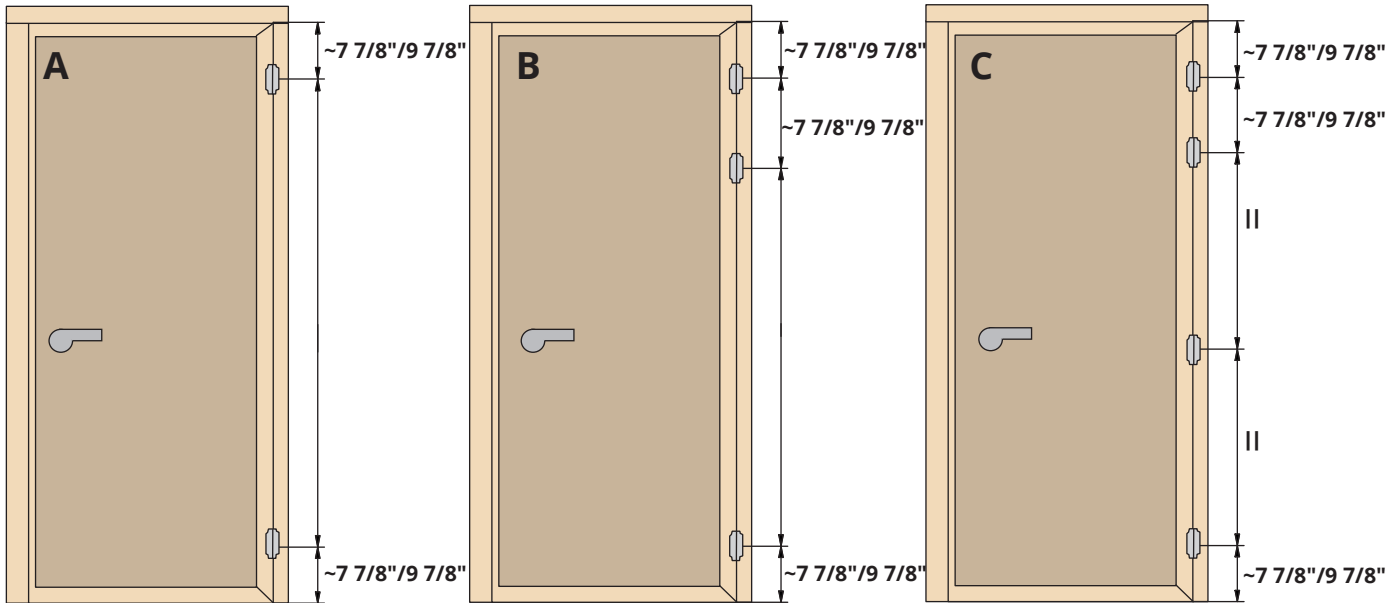
### Doors up to 132 lbs (60 kg). - invisible hinge IN230

Door height mm.	106 3/8"	4	4	4	4	4	4	5	5
	94 1/2"	4	4	4	4	4	4	4	5
	90 5/8"	4	4	4	4	4	4	4	5
	86 5/8"	3	3	3	3	3	4	4	5
	82 3/4"	2	2	2	3	3	3	4	5
	78 3/4"	2	2	2	3	3	3	4	2
	74 7/8"	2	2	2	3	3	2	2	3
	70 7/8"	2	2	2	3	2	2	3	3
	47 1/4"	2	2	2	2	Ctd	Ctd	Ctd	Ctd
	31 1/2"	2	2	2	Ctd	Ctd	Ctd	Ctd	Ctd
		23 5/8"	31 1/2"	35 1/2"	39 3/8"	41 3/8"	43 3/8"	45 1/4"	47 1/4"

Door width.

X	Suggested number of hinges
2	Switch to a hinge of higher class, use 2 hinges <b>IN303 model</b> .
3	Switch to a hinge of higher class, use 3 hinges <b>IN303 model</b> .
Ctd	Please contact the technical department

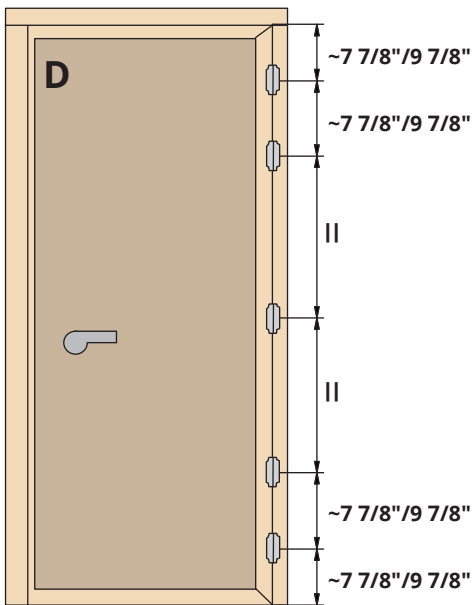
## Positioning of the hinges



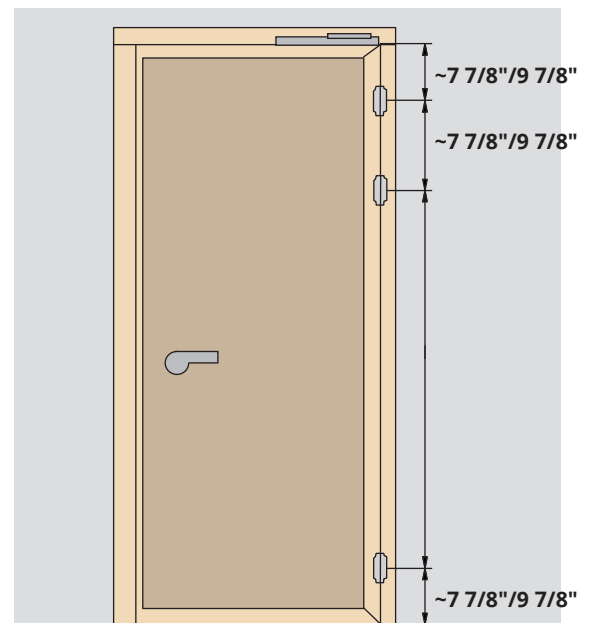
**2 hinges**

**3 hinges**

**4 hinges**



**5 hinges**



### Door-closer

Can be used in combination with the hinges model IN230, IN300, IN303 and IN310.

Referring to the load capacity table, add a hinge and decrease of 20% the maximum loading capacity of the hinge\*.

\*Please contact the Technical Department for more information on tests carried out in Otlav.

### List of Otlav invisible hinges classified by maximum load capacity

Capacity	Model
66 lbs (30 kg).	IN232
88 lbs (40 kg).	IN235, IN301, IN305
132 lbs (60 kg).	IN230, IN300, IN570
176 lbs (80 kg).	IN303
264 lbs (120 kg).	IN310