Door straighteners prevent doors from bending and fix warped doors caused by heat and humidity.

Pre-installed door straighteners installed at the time of manufacturing, prevent doors from bending and can easily restore your doors rigidity with a slight adjustment.

Retro-Fit door straighteners installed post production, correct currently warped doors.

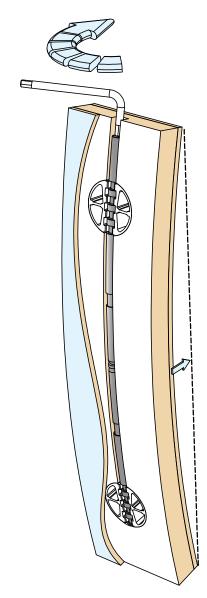
Door straighteners can be used for swinging doors, sliding doors or lateral opening doors.

#### PRODUCT SELECTION:

Recessed straighteners are mounted into the back face of a door, and can be easily adjusted from either the top edge or back face of the door.

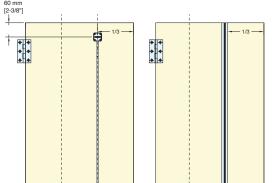
Concealed straighteners are mounted into the thickness of the door under the laminate. These can be adjusted from the top edge of the door.

Retrofit straighteners are mounted on the back face of the door. These can be adjusted from the top of the straightener.



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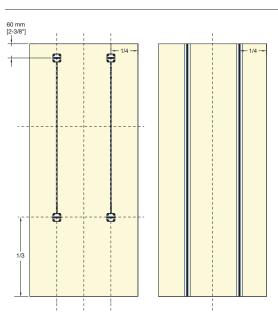


DOORS Measuring from the side of the door opposite to the hinges, install at 1/3 door width. Use One door straightener. For recessed and concealed straighteners install adjustor 60mm from top and bottom. Retrofit along whole length

of door.

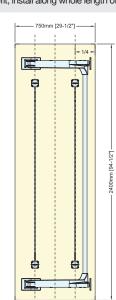
SLIDING

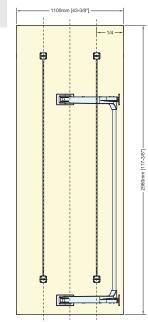
SWINGING



DOORS Recessed and concealed. straighteners do not need to travel down the whole length of a sliding door, only the top 3/3 of the door. Install at 1/4 and 3/4 door width Install 60mm from the top of the door. For Retrofit, install along whole length of door. Use 2 straighteners.















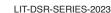
# DOOR STRAIGHTENERS

Protect your doors from future warping with Sugatsune's new door straighteners. Models DSR213, DSR423 and DSR403 are installed at the time of manufacturing to prevent warping. Available for recessed and concealed installation.

Fix your warped doors with model DSR701 retrofit door straightener which can be recessed or surface mounted onto your doors.

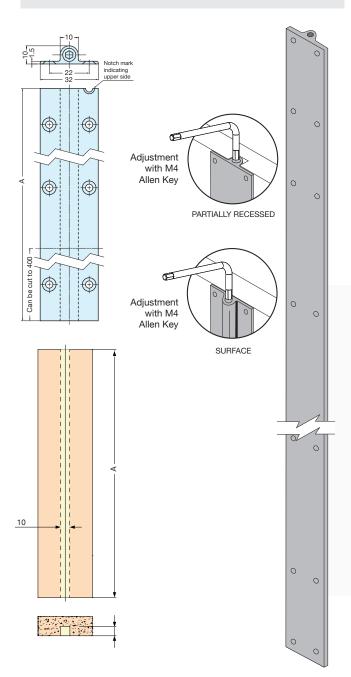
For more information and to explore our line of over 6,000 architectural and industrial products, please visit our website at www.sugatsune.com.





## DSR701-RECESSED/SURFACE

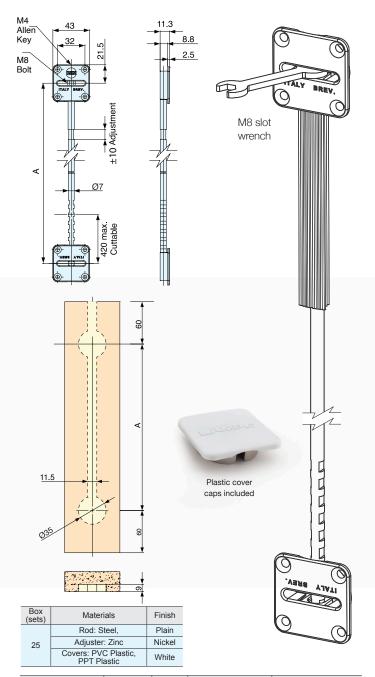
- Installed post-production to fix warped doors.
- Must run complete height of door.
- Can be partially recessed or surface mounted to the back of the door.
- ±10mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 16 mm (9/16").
- Requires M4 (U.S. #8) flathead wood countersunk screws for partially recessed installation or wood panhead screws for surface installation.
- Can be cut from the bottom up to 400mm.
- Note: Sold in Boxes of 10 sets.



Item No.	Min. Door Thickness	Adjust (mm)	Length Min-Max (A)	Box (pcs)	Materials	Finish
DSR701-1830/B-10	5/8"	± 3/8"	56-5/16" ~ 72-1/16"	10	Rod: Steel Casing: Aluminum	Black
DSR701-1830/S-10						Silver
DSR701-2200/B-10			70-7/8" ~ 86-5/8"			Black
DSR701-2200/S-10						Silver

## DSR213-RECESSED

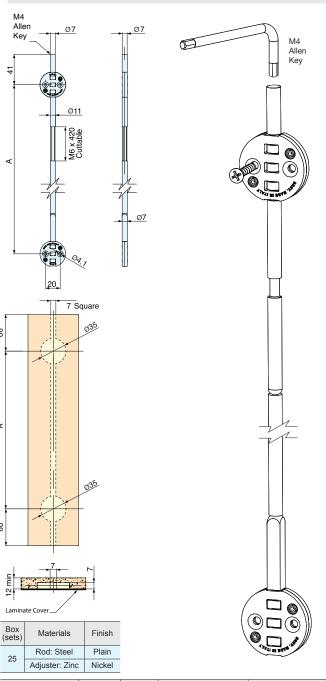
- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Partially Recessed Door Straightener with Cover Caps.
- ±10mm adjustment can be made from the back of the door with a M8 slot wrench (included).
- Min. door thickness 16 mm (5/8")
- Requires 8 M4 (U.S. #8) flathead contersunk wood screws for installation.
- Note: Sold in Boxes of 25 sets.



Item No.	Min. Door Thickness	Adjust	Center Distance (A)	Door Length
DSR213-1524-25	5/8"	± 3/8"	43-7/16" ~ 60"	48-3/16" ~ 64-3/4"
DSR213-1930-25			59-7/16" ~ 76"	64-3/16" ~ 80-11/16"
DSR213-2330-25			75-3/16" ~ 91-3/4"	79-15/16" ~ 96-7/16"
DSR213-2700-25			89-3/4" ~ 106-5/16"	94-1/2" ~ 111"

## DSR423-CONCEALED

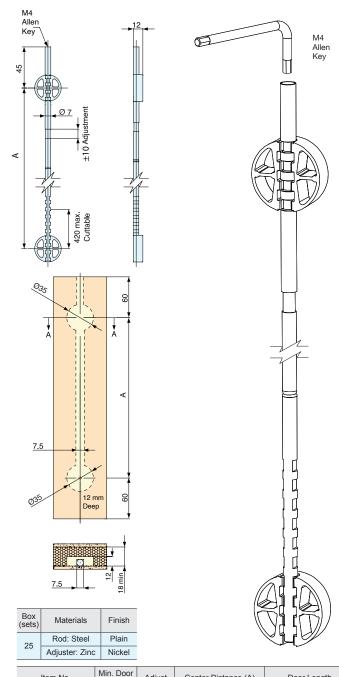
- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Fully concealed/hidden door straightener. Recessed mounted under laminate.
- ±10mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 12mm (1/2").
- Optional mounting holes to secure door straighner to door using 4
  M4 (U.S. #8) flathead contersunk wood screws.
- Note: Sold in Boxes of 25 sets.



#### Min. Door Center Distance (A) Door Length Item No. Thickness DSR423-1524-25 48-3/16" ~ 64-3/4" 43-7/16" ~ 60" DSR423-1930-25 59-7/16" ~ 176" 64-3/16" ~ 80-11/16" 1/2" ±3/8" DSR423-2300-25 78-3/4" ~ 95-1/4" 74" ~ 90-9/16" DSR423-2700-25 89-3/4" ~ 106-5/16" 94-1/2" ~ 111"

## DSR403-CONCEALED

- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Fully Concealed/Hidden Door Straightener. Recess mounted under laminate.
- ±10mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 18mm (11/16").
- Pressure-fit into place, screws not needed for installation.
- Note: Sold in Boxes of 25 sets.





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