Self-Closing Hinge
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Abstract

The self-closing hinge can be utilized on various systems that use large, heavy doors. The hinge is ideal in applications of high visibility, such as industrial refrigerator units in retail locations, due to its sleek and compact design. The versatility of the hinge makes it ideal for use in the replacement of old hinges that are no longer available on the market today. Also, due to the high versatility of the hinge it would be ideal for manufactures looking for a “one hinge fits all” to reduce future retooling and machinery costs.

Boise State University has developed a robust and adjustable self-closing hinge that incorporates multiple benefits into a small, compact, aesthetically pleasing design. This invention utilizes a spring assist function placed around the closing cams, allowing it to be smaller and more adjustable post installation. The design allows the hinge to be ambidextrous and therefore can be placed on right or left handed openings. The hinge also has a lift off feature enabling the user to quickly and easily remove the door without dismantling the product. All of these futures are accomplished in a sleek compact package.

Advantages

- This hinge is smaller and much sleeker in comparison to previously developed self-closing hinges.
- The hinge incorporates an interchangeable spring system to easily allow for adjustments to closing force post installation.
- The hinge utilizes a lift off feature allowing the user to remove the door without disassembling the hinge or detaching the connections to the doorjamb.
- The hinge has the ability to accommodate both right to left-opening doors.
- The hinge lifts doors slightly while opening to prevent abrasion to the bottom seal in doors that have no step or transition from the outside floor to the inside floor.

Boise State is looking for a Licensee for this technology.

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