



1. Product Name

Architectural Hinges, Roton™ Continuous Geared Hinges and Stainless Steel Continuous Hinges

2. Manufacturer

Hager Companies
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3. Product Description

BASIC USE

A complete line of architectural hinges for a wide variety of applications, including wide-throw, electrically modified power transfer and monitoring, anchor hinges, fire-rated spring hinges, continuous hinges and more, is available.

COMPOSITION & MATERIALS

Full Mortise, Half Mortise, Full Surface, Half Surface, Swing Clear and Aluminum Entrance Hinges
 These products are manufactured in a variety of materials and weights to suit standard or heavy duty applications. Two, 3- and 5-knuckle hinges are available in a variety of pin/hinge combinations of steel, brass and stainless steel. Bearing options include plain, anti-friction, concealed bearing and ball bearing. Full mortise hinges are also available in wide throw. Roton™ continuous geared hinges in aluminum and stainless steel pinned hinges are also available.

Spring Hinges

For automatic opening or closing of doors, single acting full mortise spring hinges are available in steel or in stainless steel with stainless steel components; single acting reverse action and single acting half surface spring hinges are available in steel.

Detention Hinges

These products feature full mortise, 3-knuckles, 2 concealed bearings and investment cast hinges with optional concealed electric hinge modifications for heavy weight doors. Materials include steel with stainless steel pin or stainless

steel with stainless steel pin with or without welded hospital tips. This family of hinges includes utility door hinges and pass-through door hinges for smaller doors.

Anchor Type Hinges

Three and 5-knuckle hinges for heavy weight applications are also available in a variety of pin/hinge combinations of steel, brass, and stainless steel with concealed bearing and ball bearing options.

Pivot Type Hinges

Reinforcing, Reconteur single acting rack-and-pinion, Camtrol double acting, forged bronze ball and thrust bearing heavy weight pivot hinges are designed to respond to a wide range of applications and installation configurations.

Electric Hinges

Three and 5-knuckle exposed and concealed electric hinges are available in steel, brass or stainless steel as ball bearing or anti-friction bearing. Operation options for the exposed electric hinges include contact, switch and contact/switch. Concealed electric hinge options include monitor only, through-wire only and through-wire with monitoring.

Air Transfer Hinges

Three and 5-knuckle air transfer hinges in standard or heavy weight are available in steel with steel pin, brass or stainless steel with stainless steel pin and with anti-friction bearing or ball bearing options.

Continuous Hinges

Roton continuous geared hinges and stainless steel continuous hinges are available in a variety of lengths and configurations to suit a wide range of applications.

Roton continuous hinges are constructed of 6063-T6 aluminum, a hard extrusion alloy, to minimize friction and wear, and are available as concealed leaf, full surface and half surface models. Bearing units are molded from Lubriloy™ RL, an engineered nylon.

Roton is low temperature and corrosion resistant. Stainless steel continuous hinges are constructed of 14 gauge 304 stainless steel with stainless steel pins and are available as half mortise, concealed leaf, full surface and half surface. Door weight is supported by pairs of nylon 6/6 bearings between each knuckle. Roton and stainless steel continuous hinges are available with electric modifications.

ACCESSORIES

Available accessories for Hager hinge products include decorator tips, set screw sets, Molly



Architectural grade hinges, Station Grill - Union Station, St. Louis, MO

Jack nuts, door hinge reinforcement plates and mortar boxes. Decorative cover channels are available for many Roton models.

FINISHES

Brass, stainless steel and steel materials are polished in a range of finishes to meet strict ANSI and BHMA standards.

Antimicrobial Protection

Hager offers an option of antimicrobial protection for the full line of stainless steel architectural grade butt hinges to prevent growth of bacteria and fungi.

OPERATION

Hager hinges are designed to meet a number of applications. Frequency of use (low, medium or high) and door/frame types combined with end use, environmental considerations and building code compliance determine the appropriate hinge application.

4. Technical Data

APPLICABLE STANDARDS

American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA)

- ANSI/BHMA A156.1 Butts & Hinges
- ANSI/BHMA A156.7 Template Hinge Dimensions
- ANSI/BHMA A156.17 Self Closing Hinges and Pivots
- ANSI/BHMA A156.18 Materials & Finishes
- ANSI/BHMA A156.26 Continuous Hinges



Americans with Disabilities Act (ADA)

Underwriters Laboratories, Inc. (UL)

Underwriters Laboratories does not specifically apply UL listing to architectural hinges. Instead, their Builder's Product Directory refers to National Fire Protection Agency (NFPA) 80 Standard for Fire Doors and Fire Windows. Roton continuous geared hinges and stainless steel continuous hinges are UL listed under UL file # R14627.

ENVIRONMENTAL CONSIDERATIONS

Hager uses environmentally friendly material in its packaging where available.

PHYSICAL/CHEMICAL PROPERTIES

Hager's anti-friction bearing hinges are functionally engineered to throw the knuckle weight against specially hardened steel raceways, which in turn ride on the anti-friction bearing surfaces. The 1-piece cup protects the bearings from moisture and dust. The cup supports no weight so it is not subjected to functional friction, pressure or wear. Lateral wear is minimized since the pin is held against thrust by the hardened steel top and bottom raceways. The bearing units are securely press-fit to the leaf knuckle to prevent loss when the hinge is disassembled.

Oilite® bearings are made of porous metal that has been press-formed and impregnated with oil. The slight pressure and heat generated when the door is operated cause the oil to come to the surface of the bearing, causing the surface to be slick and smooth.

Nylon bearings are made of resilient engineering plastics that provide a self-lubricant and very strong bearing surface. The nylon acts as a cushion for the door yet allows the door to flow smoothly on the surface of the nylon with an extremely low wear factor. Lubriloy RL is an engineered nylon.

5. Installation

Product installation instructions are available online at www.hagerco.com.

6. Availability & Cost

Hager provides a unique service for its worldwide distributors. The Materials Resource Planning and Distribution Resource Planning inventory systems are 2 computerized programs used to maintain distributor stock. Ordering is handled by 4 computer linked, strategically located, worldwide distribution centers. Through www.hagerco.com, a distributor search option locates distributors by region. Hager sales teams may also be located for national or interna-

tional locations worldwide through a separate search option.

7. Warranty

Lifetime warranty statements, associated exceptions and limitations are available online at www.hagerco.com. Hager warrants US10B finish only over brass or bronze base material. If steel base material is necessary, Hager recommends US10A lacquer finish.

8. Maintenance

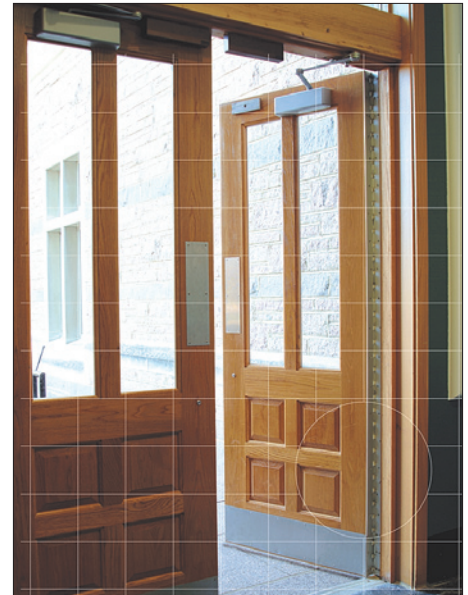
Product maintenance and operation are specific to product types and are available online at www.hagerco.com.

9. Technical Services

In addition to contacting distributors or sales team members, contact Hager representatives online at www.hagerco.com or e-mail: webmaster@hagerco.com.

10. Filing Systems

- Reed First Source®
- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.



Continuous geared hinges, Washington University Law building, St. Louis, MO