General Information

WELCOME

Hager Companies provides single-source solutions for the door hardware industry with a line of quality products that includes:

- Access Control
- Commercial Hinges
- Door Closers
- Electrified Products
- European Hardware (For international markets only)
- Exit Devices
- Locks
- Residential Hinges
- Roton Continuous Geared Hinges
- Sliding Door Hardware
- Stainless Steel Continuous Hinges
- Thresholds & Weatherstripping
- Trim & Auxiliary

Since 1849, Hager's focus has been innovative products, exceptional value, and incomparable customer service. Additionally, Hager offers complimentary comprehensive consulting services. Our services include design development assistance, budget preparation, door hardware specification writing, code compliance, submitted schedules review and approval, and technical project support.

Our Managed Services platform equips our distributors to close more work, more often, for more profit. Managed Services will allow distributors to sell electronic access control without having to develop or maintain additional specialized infrastructure. You become the expert, enhancing your business's financial sustainability by being able to participate in jobs requiring electronic access control.

We believe that by offering these value-added services, along with our premium quality, value-priced products, you'll see for yourself how Hager gives you more for your door than any other brand.

So whatever you're looking for—from simple everyday needs to solutions for unconventional applications—you'll find it in our 2024 Catalog.

CONTACT INFORMATION

Corporate Office

139 Victor Street
St. Louis, Missouri 63104
800-325-9995 (Sales and Service)
800-255-3590 (Main Office)
314-772-4400 (Local Main Office)
www.hagerco.com

Montgomery Manufacturing & Distribution Center

150 Folmar Parkway
Montgomery, AL 36105
334-284-4700 (Main Phone)

Dubai Office

Hager Companies International
P.O. BOX 17967/FZSI-ABO5
Jebel Ali Free Zone South 1
Dubai, UAE
+971 4 886 0360 (Telephone)
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China Warehouse

North Region, 3/F, No.5-2 Building
Zhuhai Park, Zhuhai Macau Cross Border
Industrial Zone, Zhuhai Guangdong
Province China

General Information

TRADE ORGANIZATIONS

Builders Hardware Manufacturers Association

The Builders Hardware Manufacturers Association is a national trade group of manufacturers whose products are classified (Standard Industrial Classification # 34294) and most familiarly recognized as locks and builders' hardware. Where applicable this catalog shows BHMA numbers in conjunction with Hager series numbers. The purpose is to advance the interests of the Builders Hardware Industry in all lawful ways.

In addition to our internal quality processes, Hager Companies participates in the BHMA Certification Program that was developed as a means for producers of builder's hardware to indicate compliance with A156 ANSI standards sponsored by BHMA. Participating manufacturers certify compliance with the standards based on a continuing program of passing the prescribed tests that include cycle, operational, strength, security, and finish test requirements.

Third party testing is performed or witnessed annually by a Nationally Recognized Test Laboratory, such as Intertek Testing Services and Underwriters Laboratories.

Hager Companies participates in the BHMA Certified Products Program for the following product lines and are listed in the BHMA Certified Products Directory available on the BHMA website www.buildershardware.com. The BHMA CPD program requires that 1/4 of the products listed in the directory must be tested on an annual basis, thus ensuring that all products listed are third-party tested at least every four years.

A156.1 Butt Hinges
A156.2 Cylindrical Locks
A156.3 Exit Devices
A156.4 Door Closers
A156.12 Interconnected Locks
A156.13 Mortise Locks
A156.17 Self Closing Hinges
A156.18 Materials and Finishes
A156.21 Thresholds
A156.22 Gaskets
A156.26 Continuous Hinges
A156.36 Auxiliary Locks

In addition to the third-party testing required by the BHMA Certified Program, Hager Companies also performs in-house QC and third-party testing on our products to maintain compliance with the requirements of the following ANSI standards.

A156.5 Cylinders & Input Devices
A156.6 Architectural Trim
A156.7 Template Hinge Dimensions
A156.8 Overhead Stops
A156.14 Sliding and Folding Door Hardware
A156.15 Release Devices
A156.16 Auxiliary Hardware
A156.19 Low Energy Doors
A156.23 Electromagnetic Locks
A156.25 Electrified Locking Devices
A156.28 Keying Systems
A156.31 Electric Strikes

Door and Hardware Institute

The purpose of the Institute is to represent the architectural openings industry as a major component of the construction industry. Hager recommends the service of a qualified A.H.C. for the preparation of hardware specification and schedules. Members of this society are qualified through years of experience and rigid examination to handle the most complex hardware situations.

Security Hardware Distributors Association

The Security Hardware Distributors Association (SHDA) was established in 1970, then as the National Locksmith Suppliers Association. Although the name may have changed to reflect changes in the industry, its purpose remains the same: engaging with locksmiths and the security industry to bring better, more innovative products to customers.

SHDA distributors bring tremendous value to their customers. With access to thousands of products and armed with dedicated and experienced service professionals, SHDA distributors serve as one-stop source for technical solutions and ongoing support.

Security Industry Association

The Security Industry Association (SIA) is the leading trade association for global security solution providers, with over 1,400 innovative member companies representing thousands of security leaders and experts who shape the future of the security industry.

SIA protects and advances its member' interests by advocating pro-industry policies and legislation at the federal and state levers; creating open industry standards that enable integration, advancing industry professionalism through education and training; opening global market opportunities; and collaborating with other like-minded organizations.

World Millwork Alliance

World Millwork Alliance (WMA) is a wholesale distribution association. Our alliance is dedicated to the progression and prosperity of the millwork industry, including the support of a highly skilled workforce. We engage in advocacy efforts on behalf of our member-business, fostering a united millwork trade community that delivers innovative products and services for the benefit of the millwork industry as a whole.

The most successful millwork preofessionals recognize the need to be united through the WMA millwork association and community. A membership in WMA provides unlimited opportunities to network and learn from our vast reservoir of experienced and knowledgeable mebers including distributors, manufacturers of products and services, manufacturer reps, and co-operative and group purchasing organization leaders.

General Information

FINISH DESIGNATIONS

BHMA	US Equiv / Hager Code	Residential	Description	Base Material
600	USP	P	Primed for painting	Steel
603	2C / H2H	2C	Zinc plated / H2H is thicker mechanical galvanized	Steel
604		2D	Zinc plated and dicromate sealed	Steel
605	US3		Bright brass, clear coated	Brass
606	US4	US4	Satin brass, clear coated	Brass
609	US5	ABA	Satin brass, blackened, satin relieved, clear coated	Brass
610	US7		Satin brass, blackened, bright relieved, clear coated	Brass
611	US9		Bright bronze, clear coated	Brass
612	US10		Satin bronze, clear coated	Brass
613	US10B	10R	Dark oxidized satin bronze, oil rubbed	Brass
618	US14		Bright nickel plated, clear coated	Brass
619	US15	US15	Satin nickel plated, clear coated	Brass
620	US15A	AN	Satin nickel plated, blackened, satin relieved, clear coated	Brass
621	US17A		Nickel plated, blackened, relieved, clear coated	Brass
622	US19	1D	Flat black coated	Brass
623	US20		Light oxidized statuary bronze, clear coated	Brass
624	US20A		Dark oxidized statuary bronze, clear coated	Brass
625	US26	US26	Bright chromium plated over nickel	Brass
626	US26D	US26D	Satin chromium plated over nickel	Brass
627	US27		Satin aluminum, clear coated / uncoated / mill finish	Aluminum
628	US28		Satin aluminum, clear anodized	Aluminum
629	US32	US32	Bright stainless steel	Stainless
630	US32D	US32D	Satin stainless steel	Stainless
631	US19	1D	Flat black coated	Steel
632	US3		Bright brass, clear coated	Steel
633	US4	US4	Satin brass, clear coated	Steel
636	US7		Satin brass, blackened, bright relieved, clear coated	Steel
637	US9		Bright bronze, clear coated	Steel
638	US5	ABA	Satin brass, blackened, satin relieved, clear coated	Steel
639	US10		Satin bronze, clear coated	Steel
640	US10B	10R	Dark oxidized satin bronze, oil rubbed	Steel
641	10A / US11	10A / US11	Antique Bronze, clear coated	Steel
645	US14		Bright nickel plated, clear coated	Steel
646	US15	US15	Satin nickel plated, clear coated	Steel
647	US15A	AN	Satin nickel plated, blackened, satin relieved, clear coated	Steel
648	US17A		Nickel plated, blackened, relieved, clear coated	Steel
649	US20		Light oxidized statuary bronze, clear coated	Steel
650	US20A		Dark oxidized statuary bronze, clear coated	Steel
651	US26	US26	Bright chromium plated over nickel	Steel

BHMA	US Equiv / Hager Code	Residential	Description	Base Material
652	US26D	US26D	Satin chromium plated over nickel	Steel
663		2CD	Zinc plated with clear chromate seal (2CD has satin polish)	Steel
674	USP	P	Primed for painting	Zinc
676	US19	1D	Flat black coated	Zinc
677	US3		Bright brass, clear coated	Zinc
678	US4	US4	Satin brass, clear coated	Zinc
680	US10		Satin bronze, clear coated	Zinc
681	US26	US26	Bright chromium plated over nickel	Zinc
682	US26D	US26D	Satin chromium plated over nickel	Zinc
688	US4	US4	Satin brass, clear coated	Aluminum
689	LS		Aluminum Paint	Steel / Brass
693	L1		Flat Black Paint	Steel / Brass
694	L3		Medium Bronze Paint	Steel / Brass
695	L2		Dark Bronze Paint	Steel / Brass
708	US9		Bright bronze, clear coated	Aluminum
709	US10		Satin bronze, clear coated	Aluminum
710	US10B	10R	Dark oxidized satin bronze, oil rubbed	Aluminum
711	US19	1D	Flat black coated	Aluminum
712	US26	US26	Bright chromium plated over nickel	Aluminum
713	US26D	US26D	Satin chromium plated over nickel	Aluminum
716	US3		Bright brass, clear coated	Aluminum
721	Aluminum	Aluminum	Aluminum	Aluminum
724	US3		Bright brass, clear coated	Stainless
731	US4	US4	Satin brass, clear coated	Stainless
737	US7		Satin brass, blackened, bright relieved, clear coated	Stainless
740	US9		Bright bronze, clear coated	Stainless
743	US10		Satin bronze, clear coated	Stainless
744	US10B	10R	Dark oxidized satin bronze, oil rubbed	Stainless
746	US14		Bright nickel plated, clear coated	Stainless
749	US15	US15	Satin nickel plated, clear coated	Stainless
752	US5	ABA	Satin brass, blackened, satin relieved, clear coated	Zinc
753	US14		Bright nickel plated, clear coated	Zinc
754	US15	US15	Satin nickel plated, clear coated	Zinc
755	US15A	AN	Satin nickel plated, blackened, satin relieved, clear coated	Zinc

General Information

Basic Requirements for an Opening to be Classified as Fire-rated

The wall, frame, and door all have to be fire-rated. For example, as it would not make much sense to put a labeled door in a non-rated wall just as you cannot put a non-labeled door in a rated wall and call the opening fire-rated. The purpose of a fire-rated opening is to retard fire for a specific length of time. All components of the opening have to be rated. When an opening is also required to be "S" (smoke) labeled then additional gasketing items will be required to comply with the code.

Every swinging fire door must have a listed and labeled self-latching device to engage the strike to be fire-rated. Push and pull plates cannot be used on a fire-rated door. The door has to latch into the frame when closed so it stays closed. The latch prevents the door from opening during a fire if something falls against it. This means you must use at least a passage lock set on the door. Deadbolts cannot be used in place of a latching device because they are not self-latching.

The door must be self-closing and self-latching to be fire rated (Rare exceptions in I-2). A properly sized, listed and labeled closing device is part of basic fire door hardware requirements. If the door is left open during a fire, then that opening cannot retard the fire as it was meant to do; the door needs to close after somebody passes through it. This is usually done by a door closer or, in some cases, spring hinges.

Steel ball bearings and steel or stainless steel based hinges must be used on fire-rated doors. Brass, bronze and other base materials cannot be used, unless tested as an assembly. Continuous hinges are allowed as tested. Plain bearing hinges cannot be used. Bearing hinges minimize wear from everyday operation and help prevent door sag. During a fire, the door needs to operate smoothly so closers and latching devices work properly. Some manufacturers may provide doors with non-bearing type hinges only when they are part of the listed assembly.

Fire-rated and listed louvers can be installed on fire doors but they have to be a fusible link type. This means that once the heat from the fire reaches a certain temperature (usually 105°F) (41° C), the fusible link will melt which causes the louver blades to close. This will help prevent the spread of fire. The maximum size for these louvers is 24" x 24" (610 x 610 mm). There is no glass allowed in a fire-rated door if it has a louver and no louvers can be installed in a 3-hour rated door.

Basic fire door frames do not have hourly ratings. The exception being frames specially labeled for less than 3 hours. Frames bearing a recognized fire label may support a 3-hour, 1-1/2-hour, 3/4-hour or a 1/3-hour door. Frames used in masonry walls can be used with a maximum 3-hour fire door. While frames in drywall are intended for use with fire doors rated up to 1-1/2-hour, some manufacturers have tested for a 3-hour frame in drywall. Verify with your manufacturer for individual listing.
Remember, these are basic requirements. Codes differ from area to area and are enforced by the Authority Having Jurisdiction (AHJ)

The purpose of a fire-rated opening is to retard fire for a specific period of time.

The hourly designation indicates the duration for the fire test exposure and is known as the fire protection rating.

A Label: 3-hour rating (for a 4-hour wall): These doors are used for openings in walls separating buildings that are joined together. They are metal doors and glass is allowed as tested. "A" label doors might not require additional seals applied to the frame, check with your individual manufacturer's procedure. Typically, a hollow metal door needs no added seals. Metal and some composite doors expand when heated. The door itself effectively seals the opening and often does not require the addition of an edge sealing system for the fire label. However, this door would still need a smoke gasket if it were functioning as a smoke control door.

B Label: 1-1/2-hour rating (for a 2-hour wall): These doors are usually used for stairwell doors but are sometimes used at all the rated walls in a building (i.e., mechanical or electrical rooms). One-hundred square inches of exposed glass per door leaf is allowed. These are mostly wood composite and hollow metal doors. A "B" label 1-hour rating (1-hour wall) exists for use in buildings less than four stories tall; this rating currently only applies to wood doors. "B" label fire doors require the addition of an edge-sealing system (category "G" gasket) to the frame to comply with the new positive pressure test method. Some wood doors do not require the additional category "G" gasket; check with your manufacturer for availability.

C Label: 3/4-hour rating (for a 1-hour wall): These doors are used for openings from a corridor into another room in the same building. 1,296 square inches of exposed glass is allowed per vision light. These are mostly wood composite doors. "C" label fire doors require the addition of an edge-sealing system (category "G" gasket) to the frame to comply with the new positive pressure test method. Some wood doors do not require the additional category "G" gasket, check with your manufacturer for availability.

D Label: 1-1/2-hour rating (for a 2-hour wall): These are hollow metal doors used in exterior walls subject to severe fire exposure from outside the building. One-hundred square inches of exposed glass per door leaf is allowed. Check with your manufacturer's listing for the addition of a category "G" gasket to meet positive pressure requirements.

E Label: 3/4-hour rating (for a 1-hour wall): These are hollow metal doors used in exterior walls subject to moderate to light fire exposure from the outside of the building. 1,296 square inches of exposed glass is allowed per vision light. Check with your manufacturers listing for the addition of a category "G" gasket to meet positive pressure requirements.

1/3-Hour Door: 20-minute rating (for a 1-hour wall): These doors do not have a letter designation for their rating and can be a wood or particle core door. 1,296 square inches of exposed glass is allowed per vision light. They are tested with or without hose stream. Doors tested without hose stream are specially labeled: "Twenty Minute-Rating Without Hose Stream." These doors are used on condo/apartment entrances, offices of a 1-hour rated corridor wall and other applications where smoke and draft control is the primary concern.

S Label: The letter "S" is the designation on a door's fire label indicating it can be used as a Smoke Control Door. Door manufacturers are allowed to put an "S" on a fire label when the door opening has passed the air infiltration test. The door opening does not become approved for a Smoke and Draft Control unit until an approved category "H" gasket system has been installed on the frame. The federal government, many owners and some states require at least some openings to be labeled for smoke as well as fire. This is not limited to 20-minutes but includes all fire labeled doors that are rated 20-minutes and above. The addition of an approved category "H" smoke control gasket completes the installation instructions necessary to validate the labeled door to become a Smoke Control Door.

All of the labels listed above have the capability of being both fire and smoke barrier openings. Openings requiring smoke labels are detailed either by the fire authority having jurisdiction, local code, NFPA 101 or NFPA 5000.

General Information

Florida Building Codes

The following products have been approved for statewide acceptance by the Florida Building Commission pursuant to Rule 9B-72.090, F.A.C., for approval of products and systems for use on Exterior Swinging Door Assemblies, in compliance with the structural requirements of the 2023 Florida Building Code (8th Edition)

Verification of Florida Statewide acceptance can be found at www.floridabuilding.org under the Product Approval section.

Certified Hardware	Assembly Configuration	Door Size	Door Ga. Min.	Design Load	Florida Certification Number (FL#)
2500 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.1 / 22010.2 / 22010.3
3400 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.4 / 22010.2 / 22010.3
3400 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.5 / 22010.2 / 22010.3
3800 Series Grade 1 Mortise	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.6
Miami-Dade NOA No. 23-1117.08 Verification of Miami-Dade acceptance can be found at www.miamidade.gov/building under the Product Approval section					
2500 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 70 psf 350 ft-lbs Impact	23130.1
3400 Series Lock w/ 3100 or 3200 Deadolt	Double - Out Swing	up to 8-0 x 8-0	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.2
3400 Series Lock w/ 3100 or 3200 Deadolt	Single or Double - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.3
	Single - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 80 psf 350 ft-lbs Impact	23130.4
	Double - Out Swing	up to 8-0 x 8-0	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.5
	Single - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 70 psf 350 ft-lbs Impact	23130.6
3800 Series Grade 1 Mortise	Double - Out Swing	8-0 x 8-0 pair max	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.7

DOOR MATERIALS AND FREQUENCY

Approximate Door Weights - pounds per square foot					
	Door Thickness				
Door Material	1-3/8″ (35 mm)	1-3/4″ (45 mm)	2″ (51 mm)	2-1/4″ (57 mm)	2-1/2″ (64 mm)
Ash	4.5	5.3	6.0	6.8	7.5
Birch	3.8	4.3	5.0	5.6	6.3
Fir	3.0	3.5	4.0	4.5	5.0
Mahogany	4.5	5.3	6.0	6.8	7.5
Oak	6.0	7.3	8.0	9.0	10.0
White Pine	3.0	3.5	4.0	4.0	5.0
Residential Hollow Core	1.7	2.5	-	-	-
Institutional Hollow Core	-	3.2	-	-	-
Staved Core	3.3	4.2	-	5.4	-
Particle Board Core	4.0	5.0	-	-	-
Mineral Core	-	4.0	-	-	-
Acoustical Core	-	8.3	-	10.6	-
Fiberglass	-	3.8	-	-	-
Hollow Metal 18 gauge	4.3	4.6	-	-	-
Hollow Metal 16 gauge	5.4	5.8	-	-	-
Hollow Metal 15 gauge	6.2	6.5	-	-	-
Hollow Metal 14 gauge	7.0	7.3	-	-	-
Hollow Metal 13 gauge	8.3	8.7	-	-	-
Hollow Metal 12 gauge	9.9	15.5	-	-	-
Hollow Metal 11 gauge	11.2	11.6	-	-	-
Hollow Metal 10 gauge	12.8	13.0	-	-	-
1-3/4″ Wood + 1/16″ Lead	-	8.7	-	-	-
1-3/4″ Wood + 1/8″ Lead	-	12.4	-	-	-
1-3/4″ Wood + 3/16″ Lead	-	16.1	-	-	-
1-3/4″ Wood + 1/4″ Lead	-	19.8	-	-	-
1-3/4″ Wood + 3/8″ Lead	-	27.2	-	-	-
1-3/4″ Wood + 1/2″ Lead	-	34.6	-	-	-

Frequency of Use		
Type of Building	Daily	Yearly
High Frequency		
Large Department Store Entrance	5,000	1,825,000
Large Office Building Entrance	4,000	1,460,000
Hospital Corridor and Surgical Doors	3,000	1,095,000
School Entrance	1,250	456,250
Office Stairwell	500	182,500
Medium Frequency		
Hospital Consultation Rooms	100	36,500
School Corridor	100	36,500
Office Building Corridor	80	29,200
Storage Room	50	18,250
Low Frequency		
Residential Entrance	30	10,950
Residential Interior	20	7,300

Note: Frequency chart recommendations apply to all average weight doors. Heavy ball bearing hinges should be used for doors having a thickness of 2″ (51 mm) or more or having a width of 3′ 4″ (1016 mm) or more. Any doors on which a closing device is used should be equipped with bearing hinges, regardless of frequency of use.

General Information

CODES AND ILLUSTRATIONS

Units of Measure
EACH - Item in a box either with or without screws.
PACK - Items poly bagged (1 or more) per bag.
PAIR - Items (1 or more) pair per box.
SET - Items (1 or more) sets per box.

Illustrations
Pictures and illustrations shown in this catalog are for general product information only and are not meant to be used as templates. Contact Hager Companies Sales and Service for templates or installation instructions, or go to www.hagerco.com to download.

Packaging
The following codes have been established to provide clarification of packaging methods. The basic code letter(s) are shown in parenthesis in the unit column of each page. The letter designation refers to the standard Hager Pack.

Hager Companies reserves the right to change the packaging methods when deemed necessary and to increase or decrease quantities to make full case quantities on a specific item.

B = Boxed
PB = Poly Bag
BLK = Bulk Pack
SET = Set