

### Full Mortise Hinges

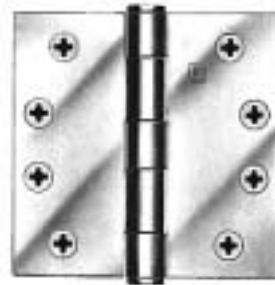
#### 1279

**Plain Bearing ■ Standard Weight ■ Template**

For use on medium weight doors requiring low frequency service (not for use with door closer).

- Steel with steel pin

HINGE SIZE INCHES	HINGE SIZE MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
2 x 2	51 x 51	0.083	4
2 1/2 x 2 1/2	64 x 64	0.089	6
3 x 3	76 x 76	0.097	6
3 1/2 x 3 1/2	89 x 89	0.119	6
4 x 4	102 x 102	0.129	8
4 1/2 x 4	114 x 102	0.134	8
4 1/2 x 4 1/2	114 x 114	0.134	8
5 x 4	127 x 102	0.145	8
5 x 4 1/2	127 x 114	0.145	8
5 x 5	127 x 127	0.145	8
6 x 4 1/2	152 x 114	0.160	10
6 x 5	152 x 127	0.160	10
6 x 6	152 x 152	0.160	10



For Hospital type  
prefix "HT"  
to catalog number

#### BB1279

**Ball Bearing ■ Standard Weight ■ Template**

For use on medium weight doors requiring medium frequency service .

- Steel with steel pin

HINGE SIZE INCHES	HINGE SIZE MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
3 1/2 x 3 1/2	89 x 89	0.119	6
4 x 4	102 x 102	0.129	8
4 1/2 x 4	114 x 102	0.134	8
4 1/2 x 4 1/2	114 x 114	0.134	8
5 x 4	127 x 102	0.145	8
5 x 4 1/2	127 x 114	0.145	8
5 x 5	127 x 127	0.145	8
6 x 4 1/2	152 x 114	0.160	10
6 x 5	152 x 127	0.160	10
6 x 6	152 x 152	0.160	10



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# HAGER HINGE

## Full Mortise Hinges

### Full Mortise Hinges

#### BB1191

Ball Bearing ■ Standard Weight ■ Template

- Brass with brass pin
- Stainless steel with stainless steel pin

Five knuckle two ball bearings non-rising removable pin with button tip and plug.

HINGE SIZE INCHES	HINGE SIZE MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
3 1/2 x 3 1/2	89 x 89	0.119	6
4 x 4	102 x 102	0.129	8
4 1/2 x 4	114 x 102	0.134	8
4 1/2 x 4 1/2	114 x 114	0.134	8
5 x 4	127 x 102	0.145	8
5 x 4 1/2	127 x 114	0.145	8
5 x 5	127 x 127	0.145	8
6 x 4 1/2	152 x 114	0.160	10
6 x 5	152 x 127	0.160	10
6 x 6	152 x 152	0.160	10



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#### BB1168

Ball Bearing ■ Heavy Weight ■ Template

For use on heavy weight doors requiring high frequency service.

- Steel with steel pin

HINGE SIZE INCHES	HINGE SIZE MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
4 1/2 x 4	114 x 102	0.180	8
4 1/2 x 4 1/2	114 x 114	0.180	8
5 x 4	127 x 102	0.190	8
5 x 4 1/2	127 x 114	0.190	8
5 x 5	127 x 127	0.190	8
6 x 4 1/2	152 x 114	.203	10
6 x 4 1/2	152 x 114	.190	10
6 x 5	152 x 127	.203	10
6 x 5	152 x 127	.190	10
6 x 6	152 x 152	.203	10
6 x 6	152 x 152	.190	10
8 x 6	203 x 152	.203	16
8 x 6	203 x 152	.190	16
8 x 8	203 x 203	.203	16
8 x 8	203 x 203	.190	16



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#### 1741

Plain Bearing ■ Residential Weight ■ Non Template

Boxed one pair (two each) with screws

- Steel material with steel pin

Square corners, five knuckle, reversible, removable pin.

HINGE SIZE INCHES	HINGE SIZE MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
3 x 3	76 x 76	0.85	6
3 1/2 x 3 1/2	89 x 89	0.85	6
4 x 4	102 x 102	0.85	8



4 x 4 Shown

### Full Mortise Spring Hinges

Full Mortise ■ Template ■ Single Acting

For use on automatic closing door. Meets codes for hotels, motels, institutions and commercial buildings

### 1250 — Square Corner

■ Steel

Sizes 3 1/2 X 3 1/2, 4 X 4, 4 1/2 X 4 1/2

#### Maximum Door Size

For labeled doors 3' x 7' the maximum door size is based on the limits set forth by NFPA Standard 80. Labeled Doors require Ball Bearing hinges.

For non-labeled doors 4'0" wide, 4" x 4" Spring hinges are not recommended. For non-labeled doors over 7'6" in height, use an additional hinge for each additional 30" of height or fraction thereof.

#### Notes:

1. For maximum versatility use all spring hinges or a combination of spring hinges and ball bearing hinges.  
Do not use plain bearing hinges.
2. Full spring tension may not be required on all hinges.
3. Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges.

SERIES	SIZE	RECOMMENDED MAX. DOOR WEIGHT (Lbs.)	SPRING HINGE	BALL BEARING HINGE
<b>FOR USE ON 1 3/8" DOOR</b>				
1250	3 1/2 x 3 1/2	40	1	2
<b>FOR USE ON 1 3/4" DOOR</b>				
	4 x 4	60	1	2
1250	4 1/2 x 4	70	1	2
	4 1/2 x 4 1/2	115	2	1
		150	3	—



HINGE SIZE INCHES	MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
3 1/2 x 3 1/2	89 x 89	0.134	6
4 x 4	102 x 102	0.134	8
4 1/2 x 4	114 x 102	0.134	8
4 1/2 x 4 1/2	114 x 114	0.134	8

### General Installation Instructions

All steps must be followed to insure that the Hager Spring Hinge will function as designed.

1. Install spring hinge to door and frame at either top and bottom or center and bottom hinge locations. Then, install ball bearing in conjunction with 1250 Series. Check for proper door clearance. There should be at least 1/4" clearance at the bottom of the door for vacuum relief.
2. Open the door by hand to 90° angle, and push it closed. If the door latches, the hinges are ready to receive tension. If there is any resistance and the door does not latch, this indicates that the door is either out of balance or misaligned. This condition will have to be corrected before tension can be applied to the spring hinges.
3. Door weight should not exceed the recommended requirements. This includes all hardware and veneer.

#### Spring Hinge Adjustment Instructions:

1. Install spring hinge in normal manner with the adjustment end up. Place door in closed position.
2. Insert Hex wrench in adjusting location. (Figure #1)
4. Rotate Hex wrench clockwise and insert locking pin loosely in adjusting hole. (Figure #2)
5. Release Hex wrench until locking pin contacts side of adjusting hole.
6. Remove Hex wrench and check the door closing force. If closing force is not satisfactory, repeat steps 2 thru 6.

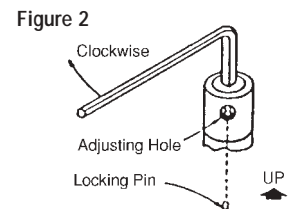
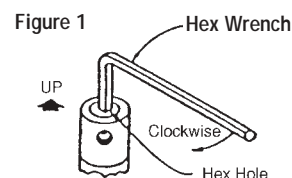
**Caution #1:** Use proper safety protection while installing the Hager Spring Hinge.

**Caution #2:** Door should be in a closed position.

**Caution #3:** Do not adjust tension past two (2) holes when a 180° opening is required.  
Do not adjust tension past three (3) when a 90° opening is required.

**Caution #4:** Always rotate the Hex Wrench in a clockwise direction, regardless of right or left hand application.

**Caution #5:** On 3 1/2 x 3 1/2 - 1250 Series — Maintain Mortise Depth at .119".



# HAGER HINGE

## Full Surface Hinges

### Full Surface Hinges

#### Ball Bearing ■ Heavy Weight ■ Template

For use on tubular steel doors with channel iron frames requiring high frequency service, and on doors/frames where the hinge mounting means has been damaged.

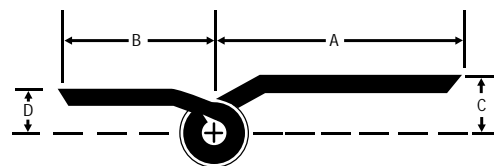
#### BB2168

##### ■ Steel with steel pin

HINGE SIZE INCHES	HINGE SIZE MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
4 <sup>1</sup> / <sub>2</sub>	114	0.180	8
5	127	0.190	8
6	152	0.190	8



For Hospital type prefix "HT" to catalog number



HINGE SIZE		DOOR LEAF WIDTH (A)		JAMB LEAF WIDTH (B)		JAMB LEAF OFFSET (C)		JAMB LEAF OFFSET (D)	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
4 <sup>1</sup> / <sub>2</sub>	114	2	51	1 <sup>1</sup> / <sub>2</sub>	38	9/16	14	7/16	11
5	127	2 <sup>5</sup> / <sub>16</sub>	59	1 <sup>1</sup> / <sub>2</sub>	38	9/16	14	7/16	11
6	152	2 <sup>3</sup> / <sub>8</sub>	60	1 <sup>1</sup> / <sub>2</sub>	38	5/8	15	1/2	12.5

### Full Surface Welding Hinges

#### Plain Bearing ■ Flat Surface ■ Heavy Weight ■ Blank (no holes)

#### 1850 — Bulk Without Screws

##### ■ Steel

Flat surface, riveted steel pin

HINGE SIZE (HEIGHT X OPEN WIDTH)		GAUGE OF METAL
INCHES	MILLIMETERS	
2 x 2	51 x 51	.104
2 <sup>1</sup> / <sub>2</sub> x 3 <sup>3</sup> / <sub>8</sub>	64 x 60	.119
3 x 3	76 x 76	.134
3 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>2</sub>	89 x 89	.154
4 x 4	102 x 102	.179
4 <sup>1</sup> / <sub>2</sub> x 4 <sup>1</sup> / <sub>2</sub>	114 x 114	.179
5 x 5	127 x 127	.179
6 x 6	152 x 152	.203



1850

### Half Surface Hinges

#### Plain Bearing ■ Standard Weight ■ Template

For use on regular weight hollow metal or wood composite doors with hollow metal frames requiring low frequency service.

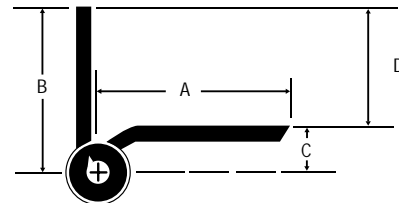
#### 1173

■ Steel with steel pin  
Five knuckle, button tips, non-rising removable pin, beveled surface leaf, reversible plug.



For Hospital type prefix "HT" to catalog number

HINGE SIZE INCHES	MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
3 1/2	89	0.119	6
4	102	0.129	7
4 1/2	114	0.134	7



HINGE SIZE		DOOR LEAF WIDTH (A)		JAMB LEAF WIDTH (B)		DOOR LEAF OFFSET (C)		APPLICATION (D)	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
3 1/2	89	1 39/64	41	1 17/32	31	29/64	11.5	1 5/64	27
4	102	2 5/16	59	1 53/64	46	33/64	13	1 5/16	33
4 1/2	114	2 9/16	65	2	51	1/2	12.5	1 1/2	38
5	127	2 7/8	73	2	51	1/2	12.5	1 1/2	38

#### Ball Bearing ■ Standard Weight ■ Template

For use on Regular Weight Hollow Metal or Wood Composite Doors with Hollow Metal Frames Requiring Low Frequency Service

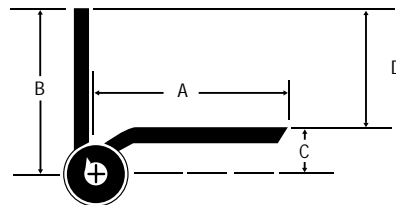
#### BB1173

■ Steel with steel pin  
Five knuckle, two ball bearings, button tips, non-rising removable pin, beveled surface leaf, reversible plug.  
Specify screw requirements.



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HINGE SIZE INCHES	HINGE SIZE MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
4	102	0.129	7
4 1/2	114	0.134	7
5	127	0.145	8



HINGE SIZE		DOOR LEAF WIDTH (A)		JAMB LEAF WIDTH (B)		DOOR LEAF OFFSET (C)		APPLICATION (D)	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
4	102	2 5/16	59	1 53/64	46	33/64	13	1 5/16	33
4 1/2	114	2 9/16	65	2	51	1/2	12.5	1 1/2	38
5	127	2 7/8	73	2	51	1/2	12.5	1 1/2	38

# HAGER HINGE

## Architectural Special Application

### Swing Clear Hinge

Full Mortise ■ Ball Bearing ■ Standard Weight  
Template ■ Swing Clear

For use in hospitals or other institutional type building

#### BB1260

- Steel with steel pin
- For Square Edge Doors

Designed to swing doors completely clear of the opening when door is opened 95°. For residential use to replace existing 3 1/2" and 4" hinges for swing clear openings. When opened 90° door projects 9/64" past stop of jamb for 3 1/2" hinge and 3/16" past stop of jamb for 4" hinge. Removable plug for reversing pin for application needed. 3 1/2" hinge recommended for 3'0" x 7'0" x 1 3/8" door not to exceed 45 lbs. 4" hinge recommended for 3'0" x 7'0" x 1 3/4" door not to exceed 60 lbs.



For Hospital  
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HINGE SIZE INCHES	MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
4 1/2	114	0.134	8
5	127	0.190	8

Full Mortise ■ Ball Bearing ■ Heavy Weight  
Template ■ Swing Clear

For use in Hospitals or Other Institutional Type Building

#### BB1262

- Steel with steel pin
- For Square Edge Doors

HINGE SIZE INCHES	MILLIMETERS	GAGE OF METAL	NUMBER OF HOLES
4 1/2	114	0.180	8
5	127	0.190	8



For Hospital  
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