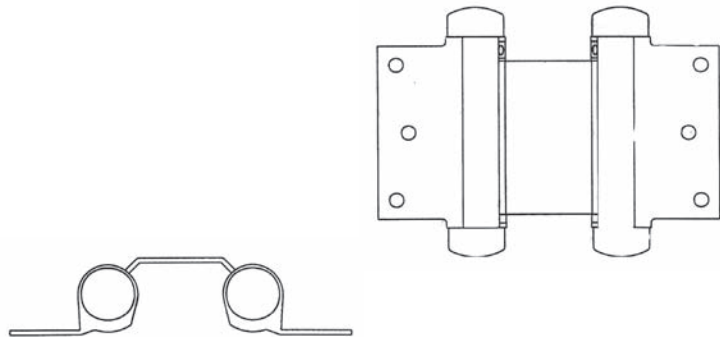


See price list for available finishes (finish chart is on the order form)

Bommer Double Action Spring Hinges

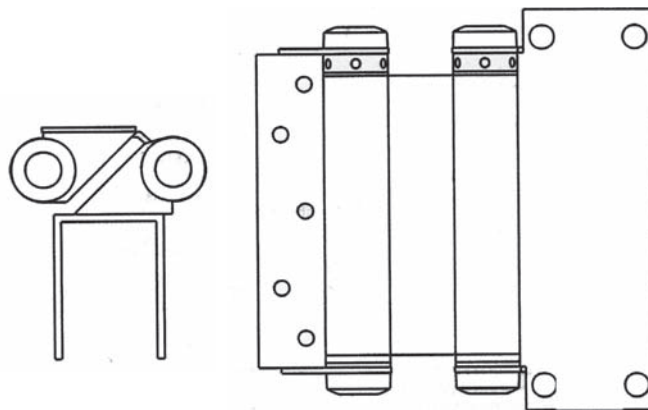
- 3" - 8" Half surface.
- Door flange is surface applied to face of door.
- Jamb flange is surface applied to jamb.
- Steel material.
- Non- template.
- Non-handed.
- Do not use on doors with hinge edge beveled.



Models	2 Hinges		3 Hinges		Door Thickness	Minimum Door Height	Quantity Per Box
	Door Weight	Door Width	Door Weight	Door Width			
080-3023-3	35	2'-0"	39	2'-8"	3/4" to 1"	5'-0"	2 ea.
080-3023-4	60	2'-4"	75	3'-0"	7/8" to 1-1/4"	6'-8"	2 ea.
080-3023-5	65	2'-8"	93	3'-0"	1-1/8" to 1-1/2"	6'-8"	2 ea.
080-3023-6	75	2'-8"	107	3'-0"	1-1/4" to 1-3/4"	7'-0"	2 ea.
080-3023-7	82	3'-0"	120	3'-6"	1-3/8" to 2"	7'-0"	2 ea.
080-3023-8	103	3'-6"	143	4'-0"	1-1/2" to 2"	7'-0"	2 ea.

Bommer Double Action Spring Hinges

- 8" Clamp flange industrial.
- Box clamp type door flange is attached to door with thru bolts and nuts.
- Jamb flange is secured to frame with screws.
- Steel material.
- Non-template.
- Non-handed.
- Standard screws packed with hinge.
 - (4) 5/16"-18 X 2-1/2" hex. Head thru bolts and nuts.
 - (5) 1/4-20 X 5/8" flat head cap screws.
 - (5) 1/4" External turn countersunk lock washers.
- Clamp flanges are not adjustable. Thickness of door must be included on order.

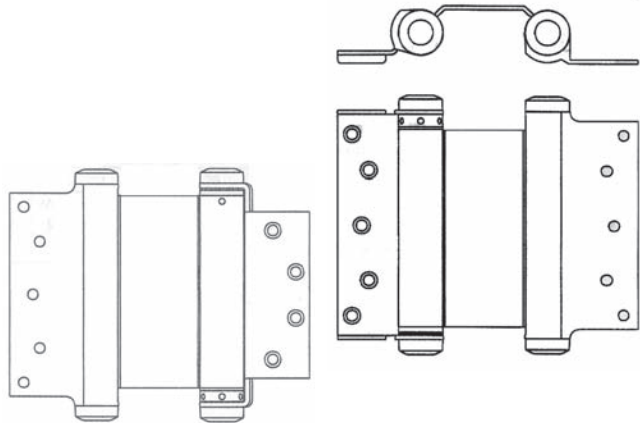


Models	Door Width	2 Hinges Weight	3 Hinges Weight	4 Hinges Weight	Door Thickness
080-3044-8	3'-0"	265	400	560	1-3/4"
	3'-6"	245	360	500	1-7/8"
	4'-0"	225	320	440	2"
	4'-6"	185	280	380	2-1/4"
	5'-0"	165	240	320	2-1/2"

See price list for available finishes (finish chart is on the order form)

Bommer Double Action Spring Hinges

- 3" - 8" Mortise.
- Door flange is mortised into edge of door.
- Jamb flange is surface applied to jamb.
- Steel material.
- Non-Template
- Non-handed.
- Do not use on doors with hinge edge beveled
- All wood screws



Models	2 Hinges		3 Hinges		Door Thickness	Minimum Door Height	Quantity Per Box
	Door Weight	Door Width	Door Weight	Door Width			
080-3029-3	35	2'-0"	39	2'-8"	3/4" To 1"	5'-0"	2 Ea.
080-3029-4	60	2'-4"	75	3'-0"	7/8" To 1 1/4"	6'-8"	2 Ea.
080-3029-5	65	2'-8"	93	3'-0"	1-1/8" To 1 1/2"	6'-8"	2 Ea.
080-3029-6	75	2'-8"	107	3'-0"	1-1/4" To 1 3/4"	7'-0"	2 Ea.
080-3029-7	82	3'-0"	120	3'-6"	1-3/8" To 2"	7'-0"	2 Ea.
080-3029-8	103	3'-6"	143	4'-0"	1-1/2" To 2"	7'-0"	2 Ea.
*080-3029-5x3.5	65	2'-8"	93	3'-0"	1-3/8"	6'-8"	2 Ea.
*080-3029-6x4.5	75	2'-8"	107	3'-0"	1-3/4"	7'-0"	2 Ea.
*080-3029-8x4.5	103	3'-6"	143	4'-0"	1-3/4"	7'-0"	2 Ea.

* Hinges will fit into standard full mortise hinge cutout in hollow metal door; but if standard hinge locations are furnished on 1 3/4" hollow metal doors, we recommend using 3029-8 x 4 1/2 hinges for maximum support. Request template from factory for door and frame clearance required.

Hager Full Mortise Spring Hinge

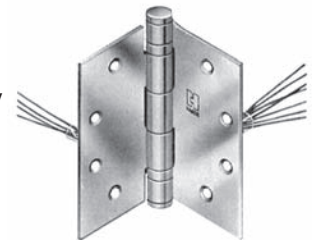
- For automatic closing of door.
- Meets codes for hotels, motels, institutions and commercial buildings.
- Adjustable tension.
- Three knuckle.
- Adjusting tool included.



Models	Size	Finish
033-1250USP	4.5 x 4.5	USP
033-1250 3	4.5 x 4.5	US3
033-1250 26D	4.5 x 4.5	26D
033-1750 2D	3.5 x 3.5	2D
033-RC1252	3.5 x 3.5	26D

Hager Concealed Electric Hinges

- ElectricThrough-Wire Only - ETW.
- Through-wire hinge.
- Provides four (4) continuous electric conductors for transfer of current or signals from frame to door.



Models	Size
033-BB1279ETW26D	4.5 x 4.5
033-BB1168ETW26D	4.5 x 4.5

See price list for available finishes (finish chart is on the order form)

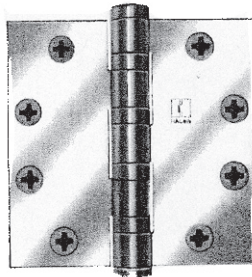
Hager Full Mortise Hinges Plain Bearing



- For use on medium weight doors requiring low frequency service.
- Standard weight - template.
- Steel with steel pin.
- Five knuckle.
- Non-rising removable pin (for non-removable pin order 1279NRP).
- Not for use with door closer.
- ANSI A156.7-1981, A156.1-1981.
- BHMA A8133.
- US Govt.# 2125/f2125.

Models	Size	Finish
033-1279 33.5	3.5 x 3.5	US3
033-1279 4 3.5	3.5 x 3.5	US4
033-1279 3 4	4 x 4	US3
033-1279 USP	4.5 x 4.5	USP
033-1279 10B	4.5 x 4.5	10B
033-1279 26D	4.5 x 4.5	26D
033-1279 3	4.5 x 4.5	US3
033-1279 USPNRP	4.5 x 4.5	USP

Hager Heavy Weight Ball Bearing



- For use on heavy doors requiring high frequency service.
- Steel with steel pin.
- Five knuckle.
- Non-rising removable pin.
- BHMA A811.
- US Govt #2117 T2117.
- ANSI A156 7-1981, A156 1-1981.

Models	Size	Finish
033-BB1168 26D	4.5 x 4.5	26D
033-BB1168 26D	5 x 4.5	26D
033-BB1168 NRP26D	4.5 x 4.5	26D
033-BB1168 NRP26D	5x5	26D
033-BB1199 32D	4.5 x 4.5	32D

Both hinges above are made of stainless steel.

Hager Full Mortise Standard Weight



- For use on medium weight door or doors requiring average/high frequency service.
- With anti-friction bearing.

Model	Size	Finish
033-AB700	4.5 x 4.5	26D

Hager Ball Bearing



- For use on medium weight door or doors requiring average frequency service.
- Standard weight - template.
- Steel with steel pin.
- Two ball bearings.
- Non-rising removable pin. (For non-removable pin order BB1279NRP,).
- RC - round corner.
- ANSI A156.7-1981, A156.1-1981.
- BHMA A8112.
- US Govt.# 2107/f2107.

Models	Size	Finish
033-BB1279 USP	4.5 x 4.5	USP
033-BB1279 3	4.5 x 4.5	US3
033-BB1279 10A	4.5 x 4.5	10A
033-BB1279 26D	4.5 x 4.5	26D
033-BB1279RC 26D	4.0 x 4.0	26D
033-BB1279NRP 10A	4.5 x 4.5	10A
033-BB1279NRP 26D	4.5 x 4.5	26D
033-BB1279NRP USP	4.5 x 4.5	USP
033-BB1191 32D	4.5 x 4.5	32D
033-BB1191NRP 32D	4.5 x 4.5	32D

*Both hinges are made of stainless steel

See price list for available finishes (finish chart is on the order form)

Hager Half Mortise Hinges

- Steel with steel pin ANSI A8212.
- For use on Hollow Metal Doors with Channel Iron Frames requiring Medium Frequency Service.
- Three knuckle with concealed hinge bearings, non-rising removable pin, concealed pin head and plug.



Size in inches	Door leaf width (a) in inches	Jamb leaf width (b) in inches	Jamb leaf offset (c) in inches
4 1/2	2	1 1/2	3/8
5	2	1 1/2	3/8

Models	Description
033-AB701	Steel with steel pin
033-AB701 HT	Hospital Type

Hager Ball Bearing Hinge

- Ball bearing.
- Standard weight.
- Brass with stainless steel pin ANSI a2412. Stainless steel with stainless steel pin ANSI a5412.
- For use on regular weight hollow metal or wood composite doors with hollow metal frames. Requires medium frequency service.
- Five knuckle, two ball bearings, button tips, non-rising removable pin, beveled surface leaf, reversible plug. Specify screw requirements.



Hinge size in inches	Number of holes	Machine screw size in door leaf	Machine screw size in jamb leaf	Quantity in box
4	7	2 x 1/4-20 OH	1/2 x 12-24 FH	3 each
4 1/2	7	2 x 1/4-20 OH	1/2 x 12-24 FH	3 each
5	8	2 x 1/4-20 OH	1/2 x 12-20 FH	3 each

Models	Description
033-BB2112	Brass with Brass Pin
033-BB2112HT	Hospital Type Hinge
033-BB2112	Stainless Steel with Stainless Steel pin

Hager Concealed Bearing Hinges

- Brass with stainless steel pin ANSI A2212. Stainless Steel with stainless steel pin with brass head ANSI A5212.
- For use on Hollow Metal Doors with Channel Iron Frames requiring Medium Frequency Service.
- Three knuckle with concealed hinge bearings, non-rising removable pin, concealed pin head and plug. Specify screw requirements.



Hinge size inches	Number of holes	Machine screw size door leaf	Qty in Box
4 1/2	7	1/2 x 12-24 FH	3 each
5	8	1/2 x 12-24 FH	3 each

Models	Description
033-AB801	Brass With Brass Pin
033-AB801HT	Brass Pin Hospital Type Hinge
033-AB801	Stainless Steel with Stainless Steel Pin

Hager Half Surface Hinges Ball Bearing

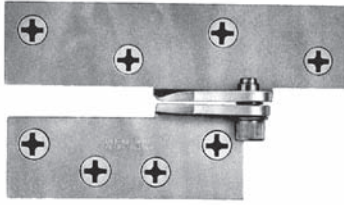
- Ball bearing
- Standard weight
- Steel with steel pin ANSI a8412.
- For use on regular weight hollow metal or wood composite doors with hollow metal frames. Requires medium frequency service.
- Five knuckle, two ball bearings, button tips, non-rising removable pin, beveled surface leaf, reversible plug. Specify screw requirements.



Hinge size in inches	Door leaf width (a) in inches	Jamb leaf width (b) in inches	Door leaf offset (c) in inches	Application (d) in inches
4	2 5/16	1 53/64	33/64	1 5/16
4 1/2	2 9/16	2	1/2	1 1/2
5	2 7/8	2	1/2	1 1/2

Models	Description
033-BB1173	Steel with Steel Pin
033-BB1173HT	Hospital Type Hinge

See price list for available finishes (finish chart is on the order form)



Hager Reinforcing Kit

- Only surface mounted reinforcing hinge available for on site installation.
- Can be installed without special preparation.
- Handing must be specified.
- Gauge of metals is 187.
- 252- For use with 4" wide hinges
- 253-For use with 4-1/2" wide hinges
- MQ252 = B1921
- MQ253= B1923

Models	Finish
033-MQ252 LH2C LH	Aluminum
033-MQ252 RH2C RH	Aluminum
033-MQ253 LH2C LH	Aluminum
033-MQ253 RH2C RH	Aluminum

Markar 1900 Series Reinforced Pivot Hinges

Reinforcer Applications

The reinforcing pivot hinges from Markar is a reinforcement solution. The reinforcer adds support to the top of the door where most stress is concentrated with the conventional butt systems. The reinforcer can easily be installed by maintenance personnel, and comes with necessary fasteners.

- Cost effective reinforcement solution.
- Insures longer door operating.
- Easy to install.
- Surface applied- no special preparation.
- Restores trouble-free operation.
- Adapts to any door.
- Acceptable for use on fire doors.
- Made of 3/16" cadmium plated steel.
- Oilite bronze bearing.
- Hardened steel pin of pivot.
- Left or right hand models.
- Full surface models.
- All fasteners included.

Models	Description
099-B1921	Full Surface 1/2" to center line of 4" hinge pin uses small pin & bushing
099-B1923	Full Surface 3/4" to center line of 4 1/2" hinge pin uses large pin & bushing
099-B1929	Full Mortise 3/4" to center line of 4 1/2" hinge pin uses large pin & bushing

