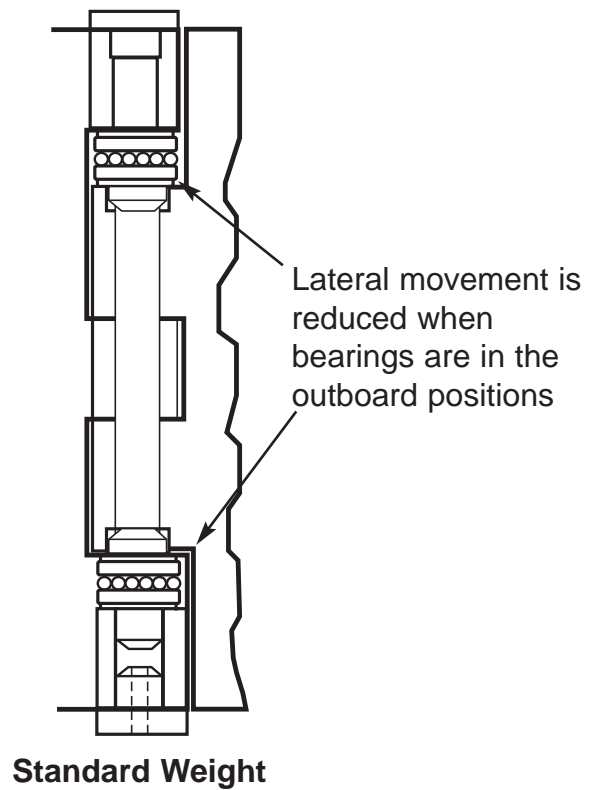
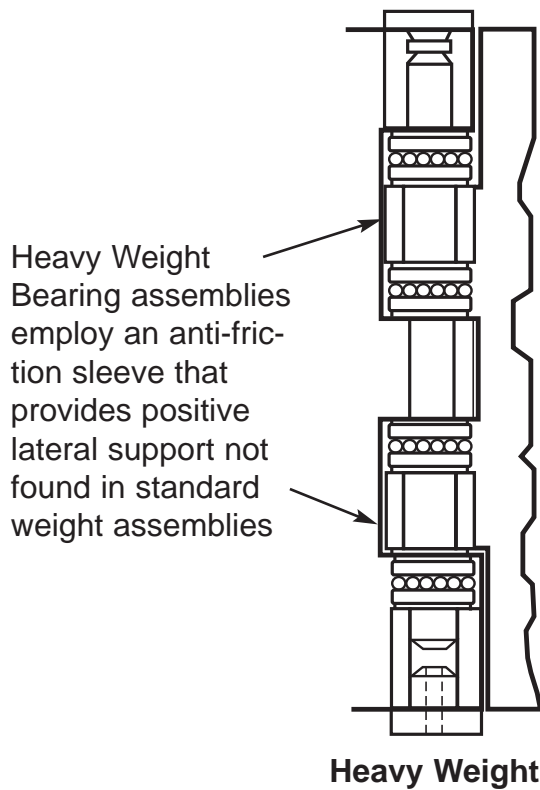
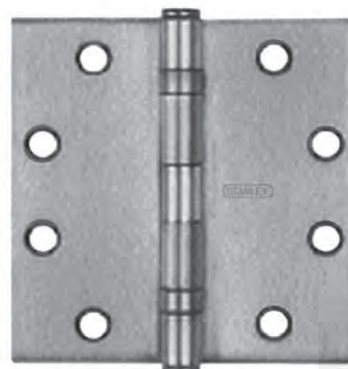


5 KNUCKLE BALL BEARING HINGES



- The vertical load of the door is supported by through-hardened chrome alloy, vertical thrust ball bearing assemblies.
- The lateral load of the door is supported by the pin bearing on the inside of the hinge knuckles.
- Large cold headed, drawn stock of the pins and long bearing area within the knuckles distributes lateral wear over a greater area, resulting in increased life of the hinge.
- Approved for use on all types of fire doors up to 4' x 10' (1219mm x 3048mm), 8' x 10' (2438mm x 3048mm) pairs, to maintain the integrity of fire rated openings and walls.
Refer to NFPA80.



5 KNUCKLE FULL MORTISE HINGES

Standard Weight Ball Bearing

FBB179 – (ANSI A8112) Steel – polished and plated or phosphated and prime coated for painting

FBB191 – (ANSI A2112) Brass or bronze – polished and plated or painted

FBB191 (32) – (ANSI A5112) Stainless steel – highly polished

FBB191 (32D) – (ANSI A5112) Stainless steel – satin finish

- For medium weight doors of average frequency
- All hinges have template screw hole location for use on either wood or hollow metal doors and frames
- Equipped with two Stanley permanently lubricated non-detachable ball bearings
- Pins in non-ferrous hinges are stainless steel
- Hole in bottom tip for easy pin removal
- Reversible flush tips and pins
- Hinges can be furnished as follows:
 - with raised barrel (RB)
 - with electric wires and/or switches (CE and/or CS)
 - with hospital tips (HT)
 - with decorative tips
 - with security studs
 - with non-removable pins (NRP)



| Size Open | | Gauge of Metal | | Flat Head Screws Per Piece | | Quantity Per Box | Quantity Per Case | Case Weight | | | |
|---------------|-------------|----------------|-------|----------------------------|----------------|------------------|-------------------|-------------|------|-------|------|
| Inches | (mm) | Inches | (mm) | Machine | Wood | | | Bronze | | Steel | |
| | | | | | | | | Lbs. | (Kg) | Lbs. | (Kg) |
| 3 1/2 x 3 | (89 x 76) | .123 | (3.1) | 6 - 10-24 x 1/2 | 6 - 10 x 1 | 3 EA. | 90 EA. | 58 | (26) | 54 | (24) |
| 3 1/2 x 3 1/2 | (89 x 89) | .123 | (3.1) | 6 - 10-24 x 1/2 | 6 - 10 x 1 | 3 EA. | 90 EA. | 65 | (29) | 59 | (27) |
| 4 x 3 1/2 | (102 x 89) | .130 | (3.3) | 8 - 12-24 x 1/2 | 8 - 12 x 1 1/4 | 3 EA. | 48 EA. | 43 | (19) | 39 | (18) |
| 4 x 4 | (102 x 102) | .130 | (3.3) | 8 - 12-24 x 1/2 | 8 - 12 x 1 1/4 | 3 EA. | 48 EA. | 45 | (20) | 42 | (19) |
| 4 1/2 x 4 | (114 x 102) | .134 | (3.4) | 8 - 12-24 x 1/2 | 8 - 12 x 1 1/4 | 3 EA. | 48 EA. | 55 | (25) | 52 | (24) |
| 4 1/2 x 4 1/2 | (114 x 114) | .134 | (3.4) | 8 - 12-24 x 1/2 | 8 - 12 x 1 1/4 | 3 EA. | 48 EA. | 59 | (27) | 55 | (25) |
| 5 x 4 | (127 x 102) | .146 | (3.7) | 8 - 12-24 x 1/2 | 4 - 12 x 1 1/4 | 3 EA. | 30 EA. | 41 | (19) | 39 | (18) |
| 5 x 4 1/2 | (127 x 114) | .146 | (3.7) | 8 - 12-24 x 1/2 | 4 - 12 x 1 1/4 | 3 EA. | 30 EA. | 45 | (20) | 43 | (19) |
| 5 x 5 | (127 x 127) | .146 | (3.7) | 8 - 12-24 x 1/2 | 4 - 12 x 1 1/4 | 3 EA. | 30 EA. | 50 | (23) | 46 | (21) |
| *6 x 4 1/2 | (152 x 114) | .160 | (4.1) | 10 - 1/4-20 x 1/2 | 5 - 14 x 1 1/2 | 3 EA. | 24 EA. | 43 | (19) | 36 | (16) |
| *6 x 5 | (152 x 127) | .160 | (4.1) | 10 - 1/4-20 x 1/2 | 5 - 14 x 1 1/2 | 3 EA. | 24 EA. | 47 | (21) | 40 | (18) |
| *6 x 6 | (152 x 152) | .160 | (4.1) | 10 - 1/4-20 x 1/2 | 5 - 14 x 1 1/2 | 3 EA. | 24 EA. | 67 | (30) | 61 | (28) |

* Available in Steel only

Consult factory for other sizes not listed

Heavy Weight Ball Bearing

FBB168 – (ANSI A8111) Steel – polished and plated or phosphated and prime coated for painting

FBB199 – (ANSI A2111) Brass or bronze – polished and plated or painted

FBB199 (32) – (ANSI A5111) Stainless steel – highly polished

FBB199 (32D) – (ANSI A5111) Stainless steel – satin finish

- For use on heavy doors or doors where high frequency is expected such as entrance doors to office buildings, stores, public buildings and corridor entrance doors to offices
- All hinges have template screw hole location for use on either wood or hollow metal doors and frames
- Equipped with four Stanley permanently lubricated non-detachable ball bearings
- Pins in non-ferrous hinges are stainless steel
- Hole in bottom tip for easy pin removal
- Reversible flush tips and pins
- Hinges can be furnished as follows:
 - with raised barrel (RB)
 - with electric wires and/or switches (CE and/or CS)
 - with hospital tips (HT)
 - with decorative tips
 - with security studs
 - with non-removable pins (NRP)



| Size Open | | Gauge of Metal | | Flat Head Screws Per Piece | | Quantity Per Box | Quantity Per Case | Case Weight | | | |
|---------------|-------------|----------------|-------|----------------------------|----------------|------------------|-------------------|-------------|------|-------|------|
| Inches | (mm) | Inches | (mm) | Machine | Wood | | | Bronze | | Steel | |
| | | | | | | | | Lbs. | (Kg) | Lbs. | (Kg) |
| 4 1/2 x 4 1/2 | (114 x 114) | .180 | (4.6) | 8 - 12-24 x 1/2 | 8 -12 x 1 1/4 | 3 EA. | 30 EA. | 45 | (21) | 42 | (19) |
| 5 x 4 1/2 | (127 x 114) | .190 | (4.8) | 8 - 12-24 x 1/2 | 8 -12 x 1 1/2 | 3 EA. | 24 EA. | 46 | (21) | 40 | (18) |
| 5 x 5 | (127 x 127) | .190 | (4.8) | 8 - 12-24 x 1/2 | 8 -12 x 1 1/2 | 3 EA. | 24 EA. | 50 | (23) | 46 | (21) |
| 6 x 4 1/2 | (152 x 114) | .203 | (5.2) | 10 - 1/4-20 x 1/2 | 10 -14 x 1 1/2 | 3 EA. | 24 EA. | 63 | (29) | 53 | (24) |
| 6 x 5 | (152 x 127) | .203 | (5.2) | 10 - 1/4-20 x 1/2 | 10 -14 x 1 1/2 | 3 EA. | 24 EA. | 65 | (30) | 55 | (25) |
| 6 x 6 | (152 x 152) | .203 | (5.2) | 10 - 1/4-20 x 1/2 | 10 -14 x 1 1/2 | 3 EA. | 24 EA. | 76 | (35) | 61 | (28) |
| 8 x 6* | (203 x 152) | .203 | (5.2) | 16 - 1/4-20 x 1/2 | 16 -14 x 1 1/2 | 3 EA. | 12 EA. | 57 | (26) | 51 | (23) |
| 8 x 8* | (203 x 203) | .203 | (5.2) | 16 - 1/4-20 x 1/2 | 16 -14 x 1 1/2 | 3 EA. | 12 EA. | 68 | (31) | 61 | (28) |

*Available in Steel only

Consult factory for other sizes not listed