



# 3 Knuckle Concealed Bearing Hinges by BEST



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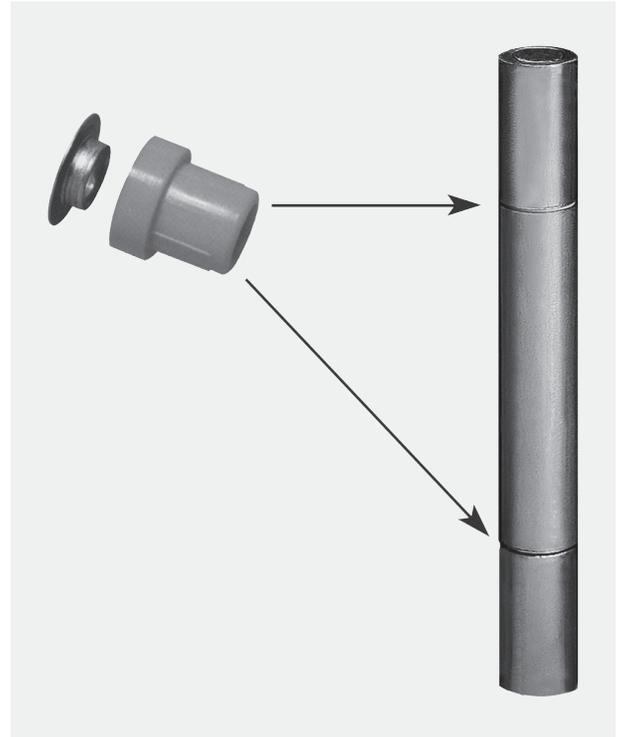
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## Patented Two Piece Bearing System

Our patented bearing system eliminates metal to metal contact between knuckles by creating its own bearing surface between the washer and sleeve. As the stainless steel washer extends into the sleeve it eliminates metal-to-metal contact between the pin and barrel, resulting in a smooth, quiet operation superior to that of a ball bearing assembly.

- Vertical wear performance exceeds ANSI/BHMA Grade 1 standards by 50%.
- Lateral wear performance exceeds ANSI/BHMA Grade 1 standards by 90%.
- Fewer horizontal barrel lines provide an aesthetically pleasing appearance.
- CBI900R and I900R series 3 knuckle hinge barrels are identical for consistent design appeal.
- Patented bearing system carries a limited lifetime warranty for the life of the building.
- 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.
- Available with exposed tips (ET).



# 3 Knuckle Full Mortise Hinges

## Standard Weight Concealed Bearing

**CB1900R** – (ANSI A8112) Steel – polished and plated or phosphated and prime coated for painting

**CB1960R** – (ANSI A2112) Brass or bronze – polished and plated or painted

**CB1960R (32)** – (ANSI A5112) Stainless steel – highly polished

**CB1960R (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
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Hole in bottom tip for easy pin removal
- Reversible flush tips and pins
- Limited lifetime warranty
- 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 exposed tips (ET)
  - with decorative tips
  - with security studs
  - with non-removable pins (NRP)



Size Open		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight	
Inches	[mm]	Inches	[mm]	Machine	Wood	Box	Case	Lbs.	[Kg]
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.	61	[26]
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]
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.	52	[21]
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.	56	[24]
5 x 4	[127 x 102]	.146	[3.7]	8 - 12-24 x 1/2	8 - 12 x 1 1/4	3 ea.	30 ea.	39	[17]
5 x 4-1/2	[127 x 114]	.146	[3.7]	8 - 12-24 x 1/2	8 - 12 x 1 1/4	3 ea.	30 ea.	43	[17]
5 x 5	[127 x 127]	.146	[3.7]	8 - 12-24 x 1/2	8 - 12 x 1 1/4	3 ea.	30 ea.	48	[20]
*6 x 6	[152 x 152]	.160	[4.1]	10 - 1/4 - 20 x 1/2	10 - 14 x 1 1/2	3 ea.	24 ea.	66	[27]

\* Available in Steel only  
Consult factory for other sizes not listed

# 3 Knuckle Full Mortise Hinges

## Heavy Weight Concealed Bearing

**CB1901R** – (ANSI A8111) Steel – polished and plated or phosphated and prime coated for painting

**CB1961R** – (ANSI A2111) Brass or bronze – polished and plated or painted

**CB1961R (32)** – (ANSI A5111) Stainless steel – highly polished

**CB1961R (32D)** – (ANSI A5111) Stainless steel – satin finish



- For heavy doors, or doors of high frequency, 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
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Hole in bottom tip for easy pin removal
- Reversible flush tips and pins
- Limited lifetime warranty
- 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 exposed tips (ET)
  - with decorative tips
  - with security studs
  - with non-removable pins (NRP)



Size Open		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight		Case Weight	
Inches	[mm]	Inches	[mm]	Machine	Wood	Box	Case	Bronze		Steel	
						Each	Each	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	30	49	[22]	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	24	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	24	49	[22]	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	24	60	[27]	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	24	62	[28]	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	24	72	[28]	64	[29]
8 x 6*	[203 x 152]	.203	[5.2]	16 - 1/4 -20 x 1/2	16 - 14 x 1-1/2	3	12			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	12			61	[28]

\* Available in Steel only  
Consult factory for other sizes not listed

# 3 Knuckle Half Surface Hinges

## Standard Weight Concealed Bearing

**CB1910R** – (ANSI A8412) Steel – polished and plated or phosphated and prime coated for painting

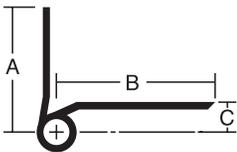
**CB1970R** – (ANSI A2412) Brass or bronze – polished and plated or painted

**CB1970R (32)** – (ANSI A5412) Stainless steel – highly polished

**CB1970R (32D)** – (ANSI A5412) Stainless steel – satin finish



- For medium weight wood, kalamein, or mineral core doors with edge rails that won't hold screws, hung on hollow metal frames, of average frequency
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Reversible flush tips and pins
- Hinges can be furnished with hospital tips (HT)
- Consider using a back plate with these hinges
- Limited lifetime warranty
- Available with exposed tips (ET)
- Packed with machine screws and grommet nuts for 1 3/4" doors



Measurements below

Size Length of Joint		Width				Offset		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight		Case Weight	
		Frame Leaf (A)		Door Leaf (B)		(C)				Frame Leaf	Door Leaf	Box	Case	Bronze		Steel	
Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Lbs.	Lbs.	Each	Each	Lbs.	(Kg)	Lbs.	(Kg)
4	[102]	1-13/16	[46]	2-1/4	[57.2]	1/2	[12.7]	.130	[3.3]	4-12-24 x 1/2	3-1/4-20 x 2	3	48	56	[25]	47	[21]
4-1/2	[114]	2-1/16	[52.4]	2-9/16	[65.1]	9/16	[14.3]	.134	[3.4]	4-12-24 x 1/2	3-1/4-20 x 2	3	30	44	[20]	37	[17]
5	[127]	2-1/16	[52.4]	2-7/8	[73]	9/16	[14.3]	.146	[3.7]	4-12-24 x 1/2	4-1/4-20 x 2	3	24	48	[22]	39	[18]

# 3 Knuckle Half Surface Hinges

## Heavy Weight Concealed Bearing

**CB1911R** – [ANSI A841] Steel – polished and plated or phosphated and prime coated for painting

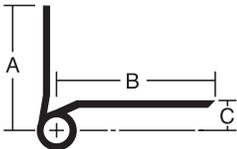
**CB1971R** – [ANSI A241] Brass or bronze – polished and plated or painted

**CB1971R (32)** – [ANSI A541] Stainless steel – highly polished

**CB1971R (32D)** – [ANSI A541] Stainless steel – satin finish



- For heavy, or high frequency wood, or mineral core doors with edge rails that won't hold screws, hung on hollow metal frames
- Size 6" (152mm) also recommended for lead lined doors not exceeding 250lbs. (113Kg)
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Heavy weight gauges increase available bearing surface area for maximum friction reduction
- Pins in nonferrous hinges are stainless steel
- Reversible flush tips and pins
- Hinges can be furnished with hospital tips (HT)
- Consider using a back plate with these hinges
- Limited lifetime warranty
- Available with exposed tips (ET)
- Packed with machine screws and grommet nuts for 1 3/4" doors



Measurements below

Size Length of Joint		Width				Offset		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight		Case Weight	
Inches	[mm]	Frame Leaf (A)		Door Leaf (B)		[C]		Inches	[mm]	Frame Leaf	Door Leaf	Box	Case	Lbs.	[Kg]	Lbs.	[Kg]
		Inches	[mm]	Inches	[mm]	Inches	[mm]			Lbs.	Lbs.	Each	Each	Lbs.	[Kg]	Lbs.	[Kg]
4-1/2	[114]	2-1/8	[54]	2-9/16	[65]	5/8	[15.9]	.180	[4.6]	4-12-24 x 1/2	3-1/4-20 x 2	3	30	59	[27]	47	[21]
5	[127]	2-1/8	[54]	2-7/8	[73]	5/8	[15.9]	.190	[4.8]	4-12-24 x 1/2	4-1/4-20 x 2	3	24	58	[26]	48	[22]
6	[152]	2-1/8	[54]	3-1/4	[82.6]	5/8	[15.9]	.203	[5.2]	5-1/4-20 x 1/2	5-1/4-20 x 2	3	24	90	[41]	82	[37]

# 3 Knuckle Half Mortise Hinges

## Standard Weight Concealed Bearing

**CB1920R** – (ANSI A8212) Steel – polished and plated or phosphated and prime coated for painting

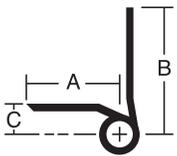
**CB1980R** – (ANSI A2212) Brass or bronze – polished and plated or painted

**CB1980R (32)** – (ANSI A5212) Stainless steel – highly polished

**CB1980R (32D)** – (ANSI A5212) Stainless steel – satin finish



- For medium weight hollow metal, or wood doors of average frequency, hung on channel iron frames
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Reversible flush tips and pins
- Hinges can be furnished with hospital tips (HT)
- Limited lifetime warranty
- Available with exposed tips (ET)



Measurements below



Size Length of Joint		Width				Offset		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight		Case Weight	
		Frame Leaf (A)		Door Leaf (B)		(C)		Metal		Frame Leaf	Door Leaf	Box	Case	Bronze		Steel	
Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Lbs.	Lbs.	Each	Each	Lbs.	(Kg)	Lbs.	(Kg)
4-1/2	(114)	1-1/2	(38.1)	2-1/16	(52.4)	7/16	(11.1)	.134	(3.4)	3-12-24 x 1/2	4-12-24 x 1/2	3	30	30	(14)	24	(11)
4	(127)	1-1/2	(38.1)	2-1/16	(52.4)	7/16	(11.1)	.146	(3.7)	4-12-24 x 1/2	4-12-24 x 1/2	3	24	37	(17)	31	(14)

# 3 Knuckle Half Mortise Hinges

## Heavy Weight Concealed Bearing

**CB1921R** – (ANSI A8211) Steel – polished and plated or phosphated and prime coated for painting

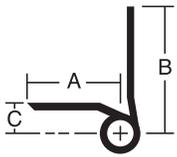
**CB1981R** – (ANSI A2211) Brass or bronze – polished and plated or painted

**CB1981R (32)** – (ANSI A5211) Stainless steel – highly polished

**CB1981R (32D)** – (ANSI A5211) Stainless steel – satin finish



- For heavy, or high frequency hollow metal, or wood doors, hung on channel iron frames
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Reversible flush tips and pins
- Hinges can be furnished with hospital tips (HT)
- Limited lifetime warranty
- Available with exposed tips (ET)



Measurements below



Size Length of Joint		Width				Offset		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight		Case Weight	
		Frame Leaf (A)		Door Leaf (B)		(C)		Metal		Frame Leaf	Door Leaf	Box	Case	Bronze	Steel		
Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Lbs.	Lbs.	Each	Each	Lbs.	(Kg)	Lbs.	(Kg)
4-1/2	(114)	1-1/2	(38.1)	2-1/8	(54)	1/2	(12.7)	.180	(4.6)	3-12-24 x 1/2	4-12-24 x 1/2	3	30	36	(17)	36	(17)
5	(127)	1-1/2	(38.1)	2-1/8	(54)	1/2	(12.7)	.190	(4.8)	4-12-24 x 1/2	4-12-24 x 1/2	3	24	36	(17)	36	(17)
6	(152)	1-1/2	(38.1)	2-1/8	(54)	1/2	(12.7)	.203	(5.2)	4-1/4-20 x 1/2	5-1/4-20 x 1/2	3	24	48	(22)	48	(22)

# 3 Knuckle Full Surface Hinges

## Standard Weight Concealed Bearing

**CB1930R** – [ANSI A8312] Steel – polished and plated or phosphated and prime coated for painting

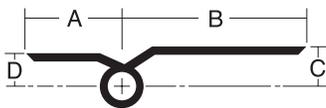
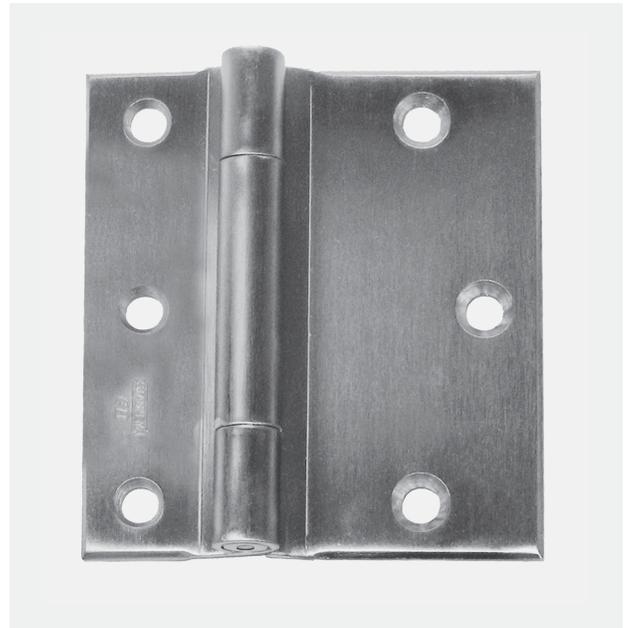
**CB1990R** – [ANSI A2312] Brass or bronze – polished and plated or painted

**CB1990R (32)** – [ANSI A5312] Stainless steel – highly polished

**CB1990R (32D)** – [ANSI A5312] Stainless steel – satin finish



- For medium weight mineral core, kalamein, or wood doors of average frequency, hung on channel iron frames
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Reversible flush tips and pins
- Hinges can be furnished with hospital tips (HT)
- Consider using a back plate with these hinges
- Limited lifetime warranty
- Available with exposed tips (ET)
- Packed with machine screws and grommet nuts for 1 3/4" doors



Measurements below

Size Length of Joint		Width				Offset		Offset		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight		Case Weight	
Inches	[mm]	Inches	[mm]	Inches	[mm]	Inches	[mm]	Inches	[mm]	Inches	[mm]	Lbs.	Lbs.	Each	Each	Lbs.	[Kg]	Lbs.	[Kg]
4-1/2	[114]	1-1/2	[38.1]	2-9/16	[65]	9/16	[14.3]	7/16	[11.1]	.134	[3.4]	3-12-24 x 1/2	3-1/4-20 x 2	3	30	40	[18]	38	[17]
5	[127]	1-1/2	[38.1]	2-7/18	[73]	9/16	[14.3]	7/16	[11.1]	.146	[3.7]	4-12-24 x 1/2	4-1/4-20 x 2	3	24	43	[20]	39	[18]

# 3 Knuckle Full Surface Hinges

## Heavy Weight Concealed Bearing

**CB1931R** – (ANSI A8311) Steel – polished and plated or phosphated and prime coated for painting

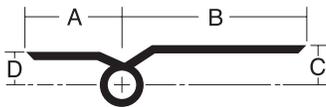
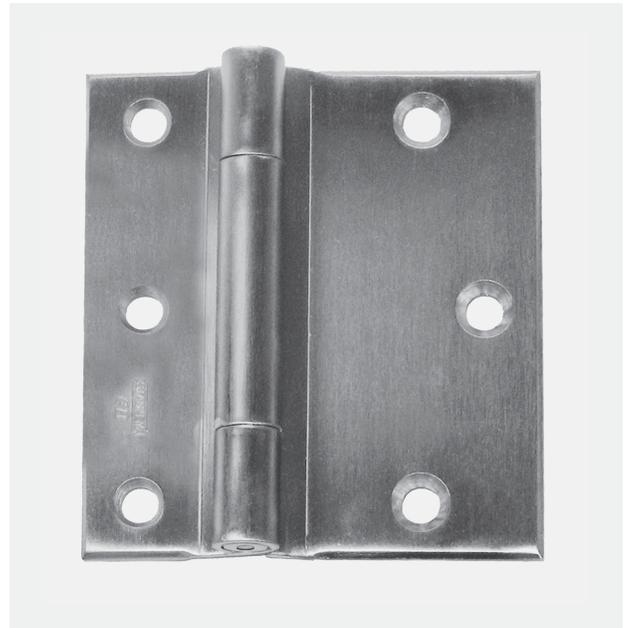
**CB1991R** – (ANSI A2311) Brass or bronze – polished and plated or painted

**CB1991R (32)** – (ANSI A5311) Stainless steel – highly polished

**CB1991R (32D)** – (ANSI A5311) Stainless steel – satin finish



- For heavy, or high frequency mineral core, or wood doors with edge rails that won't hold screws, hung on channel iron frames
- Heavy weight gauges increase available bearing surface area for maximum friction reduction
- Size 6" (152mm) also recommended for lead lined doors not exceeding 250 lbs (113 Kg)
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Reversible flush tips and pins
- Hinges can be furnished with hospital tips (HT)
- Consider using a back plate with these hinges
- Limited lifetime warranty
- Available with an inline hole pattern for tubular steel doors
- Available with exposed tips (ET)
- Packed with machine screws and grommet nuts for .13/4" doors



Measurements below

Size Length of Joint		Width				Offset		Offset		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per		Case Weight		Case Weight	
		Frame Leaf (A)		Door Leaf (B)		Door Leaf (C)		Frame Leaf (D)				Frame Leaf		Door Leaf		Bronze		Steel	
Inches	[mm]	Inches	[mm]	Inches	[mm]	Inches	[mm]	Inches	[mm]	Inches	[mm]	Lbs.	Lbs.	Each	Each	Lbs.	[Kg]	Lbs.	[Kg]
4-1/2	[114]	1-1/2	[38.1]	2-9/16	[65]	5/8	[15.9]	1/2	[12.7]	.180	[4.6]	3-12-24 x 1/2	3-12-24 x 1/2	3	30	56	[26]	44	[20]
5	[127]	1-1/2	[38.1]	2-7/8	[73]	5/8	[15.9]	1/2	[12.7]	.190	[4.8]	4-12-24 x 1/2	4-12-24 x 1/2	3	24	57	[26]	51	[23]
6	[152]	1-1/2	[38.1]	3-1/4	[82.6]	5/8	[15.9]	1/2	[12.7]	.203	[5.2]	4-1/4-20 x 1/2	5-1/4-20 x 1/2	3	24	80	[36]	74	[34]

Consult factory for other sizes not listed

# 3 Knuckle Slip-In Hinges

## Standard Weight Concealed Bearing – Application "A"

**CB1900R** – (ANSI A8152) Slip-in application "A", Steel – polished and plated or painted

**CB1960R** – (ANSI A2152) Slip-in application "A", Brass or bronze – polished and plated or painted

**CB1960R (32)** – (ANSI A5152) Slip-in application "A", Stainless steel – highly polished

**CB1960R (32D)** – (ANSI A5152) Slip-in application "A", Stainless steel – satin finish



- For aluminum doors with aluminum frames
- "Slip-in" application where one leaf of hinge is inserted through a slot in door or frame, and the other leaf mortised
- Application A – specify "swaged to provide 3/16" [4.8mm] clearance between leaves when parallel and one leaf with standard punching and countersinking and other leaf drilled and tapped." Specify hand desired.
- Round corners – use prefix "RD" and specify radius desired.
- Other types and sizes available on request
- Pins in nonferrous hinges are stainless steel
- Available with exposed tips [ET]
- Limited lifetime warranty

Size Open		Gauge of Metal		Flat Head Screws Per Piece	Quantity Per		Case Weight		Case Weight	
Inches	(mm)	Inches	(mm)		Machine	Box	Case	Bronze	Steel	Lbs.
4 x 4	[102 x 102]	.130	[3.3]	8 - 12-24 x 1/2	3	48	44	[20]	45	[21]
4-1/2 x 4	[114 x 102]	.134	[3.4]	8 - 12-24 x 1/2	3	48	52	[24]	55	[25]
4-1/2 x 4-1/2	[114 x 114]	.134	[3.4]	8 - 12-24 x 1/2	3	48	55	[25]	59	[27]

\* For application A when used on wood doors, specify wood screws for door leaf

## Standard Weight Concealed Bearing – Application "B"

**CB1900R** – (ANSI A8142) Slip-in application "B", Steel – polished and plated or painted

**CB1960R** – (ANSI A2142) Slip-in application "B", Brass or bronze – polished and plated or painted

**CB1960R (32)** – (ANSI A5142) Slip-in application "B", Stainless steel – highly polished

**CB1960R (32D)** – (ANSI A5142) Slip-in application "B", Stainless steel – satin finish



- For aluminum doors with aluminum frames
- "Slip-in" application where both leaves of hinge are inserted through slots in door and frame
- Application B – specify "both leaves swaged to provide 5/16" [7.9mm] clearance between leaves when parallel and both leaves drilled and tapped"
- Round corners – use prefix "RD" and specify radius desired.
- Other types and sizes available on request
- Pins in nonferrous hinges are stainless steel
- Not handed
- Available with exposed tips [ET]
- Limited lifetime warranty

Size Open		Gauge of Metal		Flat Head Screws Per Piece	Quantity Per		Case Weight		Case Weight	
Inches	(mm)	Inches	(mm)		Machine	Box	Case	Bronze	Steel	Lbs.
4 x 4	[102 x 102]	.130	[3.3]	8 - 12-24 x 1/2	3	48	44	[20]	45	[21]
4-1/2 x 4	[114 x 102]	.134	[3.4]	8 - 12-24 x 1/2	3	48	52	[24]	55	[25]
4-1/2 x 4-1/2	[114 x 114]	.134	[3.4]	8 - 12-24 x 1/2	3	48	55	[25]	59	[27]

\* For application A when used on wood doors, specify wood screws for door leaf

# 3 Knuckle Pivot Reinforced Hinges

Heavy Weight Concealed Bearing  
Shock Proof!

Steel – polished and plated or phosphated and prime coated

CB1907R – (ANSI A8541)

CB1908R – (ANSI A8541)

CB1909R – (ANSI A8541)

Bronze – polished and plated or painted

CB1967R – (ANSI A2541)

CB1968R – (ANSI A2541)

CB1969R – (ANSI A2541)

Stainless steel – satin finish

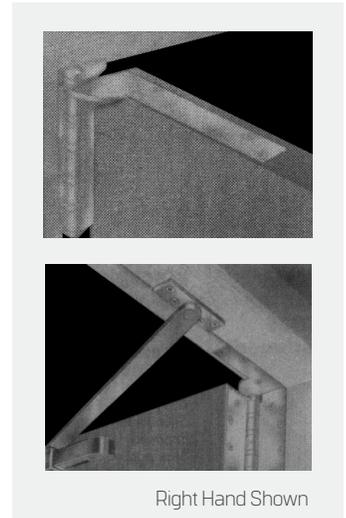
CB1967R (32D) – (ANSI A5541)

CB1968R (32D) – (ANSI A5541)

CB1969R (32D) – (ANSI A5541)



- Ideal for any door that is subject to jarring or abusive handling
- The purpose of this two-in-one combination is to anchor and reinforce doors and frames exposed to damage from abuse in such installations, stresses are transferred to the top hinge
- A pivot and butt hinge are combined in one compact interlocked unit and share the same pin to assure perfect alignment. Interlocked corners prevent sidewise motion of pivot or butt leaves
- Heavy weight gauges increase available bearing surface area for maximum friction reduction
- Beveled edge doors require a different door plate than square edge doors
- Short door plate [4" (102mm) min.] available for use with most concealed holders and closers – specify on order
- Handed left or right
- Limited lifetime warranty



Class Number	Door Edge	Metal	Contents of Set			
			Top Hinge*	Intermediate and Bottom Hinge*		
				Number**	Inches	(mm)
CB1907R	Square or beveled 1/8" in 2" (3.2 in 51mm)	Steel	1–Type of CB1901R NRP x Frame plate ONLY	2-CB1901R-NRP	5 x 4-1/2	(127 x 114)
CB1908R	Square	Steel	1–Type of CB1901R NRP x Frame and door plate	2-CB1901R-NRP	5 x 4-1/2	(127 x 114)
CB1909R	Beveled 1/8" IN 2" (3.2 in 51 mm)	Steel	1–Type of CB1901R NRP x Frame and door plate	2-CB1901R-NRP	5 x 4-1/2	(127 x 114)
CB1967R	Square or beveled (3.2 in 51 mm)	Bronze or Stainless Steel	1–Type of CB1961R NRP x Frame plate ONLY	2-CB1961R-NRP	5 x 4-1/2	(127 x 114)
CB1968R	Square	Bronze or Stainless Steel	1–Type of CB1961R NRP x Frame and door plate	2-CB1961R-NRP	5 x 4-1/2	(127 x 114)
CB1969R	Beveled 1/8" in 2" (3.2 in 51mm)	Bronze or Stainless Steel	1–Type of CB1961R NRP x Frame and door plate	2-CB1961R-NRP	5 x 4-1/2	(127 x 114)

Class Number	Gauge of Metal		Frame Plate				Door Plate				Flat Head Screws Per Piece		Sets Per Case	Case Weight	
			Length		Width		Length		Width		Wood.	Machine		Lbs.	(Kg)
	Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)	Inches	(mm)			Each		
CB1970R	.190	(4.8)	5	(127)	1.25	(31.8)					28-12- x 1-1/2	28-12-24 x 1/2	1	6	(3)
CB1908R	.190	(4.8)	5	(127)	1.25	(31.8)	7.78	(198)	1.25	(31.8)	32-12- x 1-1/2	32-12-24 x 1/2	1	7	(3)
CB1909R	.190	(4.8)	5	(127)	1.25	(31.8)	7.64	(194)	1.25	(31.8)	32-12- x 1-1/2	32-12-24 x 1/2	1	7	(3)
CB1967R	.190	(4.8)	5	(127)	1.25	(31.8)					12-12- x 1-1/2	28-12-24 x 1/2	1	6	(3)
CB1968R	.190	(4.8)	5	(127)	1.25	(31.8)	7.78	(198)	1.25	(31.8)	16-12- x 1-1/2	32-12-24 x 1/2	1	7	(3)
CB1968R (32D)	.190	(4.8)	5	(127)	1.25	(31.8)	7.78	(198)	1.25	(31.8)	16-12- x 1-1/2	32-12-24 x 1/2	1	7	(3)
CB1969R	.190	(4.8)	5	(127)	1.25	(31.8)	7.64	(194)	1.25	(31.8)	16-12- x 1-1/2	32-12-24 x 1/2	1	7	(3)
CB1969R (32D)	.190	(4.8)	5	(127)	1.25	(31.8)	7.64	(194)	1.25	(31.8)	16-12- x 1-1/2	32-12-24 x 1/2	1	7	(3)

\* Hinges supplied with set screw in barrel, non-removable pin

\*\* For doors over 7' 6" in height, specify additional hinges to order: specify catalog number, finish and hand

# 3 Knuckle Swing Clear Hinges

Standard Weight Concealed Bearing "Swing Clear" Full Mortise

Steel – polished and plated or phosphated and prime coated for painting

CB1946R – [ANSI A8122]

CB1947R – [ANSI A8122]

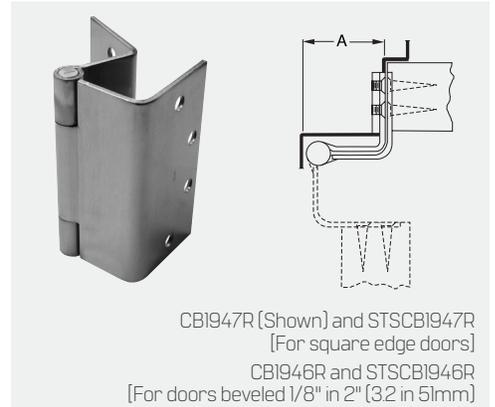
Stainless steel – highly polished or satin finish

STSCB1946R – [ANSI A5122]

STSCB1947R – [ANSI A5122]



- Reversible flush tips and pins
- Ideal for remodeling or new construction
- Specify CB1947R and STSCB1947R for full mortise application on square edge doors
- Specify CB1946R and STSCB1946R for full mortise application on bevel edge doors
- Designed to swing doors completely clear of the opening when door is opened 90°
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Hinges can be furnished with hospital tips (HT)
- Limited lifetime warranty
- Available with exposed tips (ET)



Class Number		Size Length of Joint		Minimum Clearance Required Dimensions "A"		Gauge of Metal		Flat Head Screws Per Piece		Quantity Per Box Each	Quantity Per Case Each	Case Weight	
		Inches	(mm)	Inches	(mm)	Inches	(mm)	Machine	Wood			Lbs.	(Kg)
CB1946R	STSCB1946R	4-1/2	{114}	2-1/8	{54}	.134	{3.4}	4-12-24 x 1/2	4-12 x 1 1/4	3	24	36	{17}
CB1947R	STSCB1947R	4-1/2	{114}	2-1/8	{54}	.134	{3.4}	4-12-24 x 1/2	4-12 x 1 1/4	3	24	36	{17}

# 3 Knuckle Swing Clear Hinges

## Heavy Weight Concealed Bearings "Swing Clear" Hinges

Steel – polished and plated or phosphated and prime coated for painting

CB1948R – [ANSI A812]

CB1949R† – [ANSI A812]

CB1959R – [ANSI A842]

CB1941R – [ANSI A822]

CB1942R† – [ANSI A822]

CB1951R – [ANSI A832]

Stainless steel – highly polished or satin finish

STSCB1948R – [ANSI A512]

STSCB1949R† – [ANSI A512]

STSCB1959R – [ANSI A542]

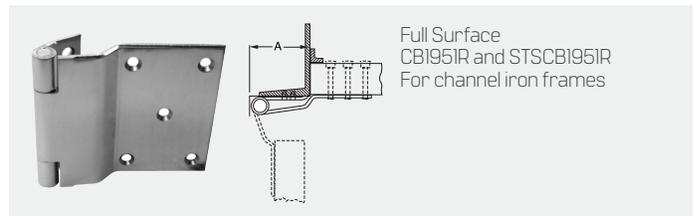
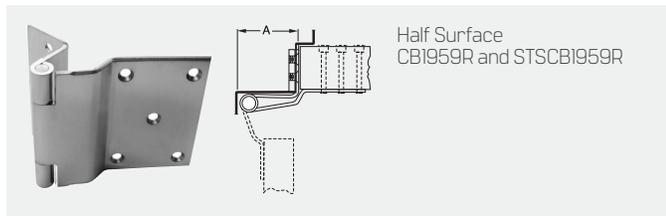
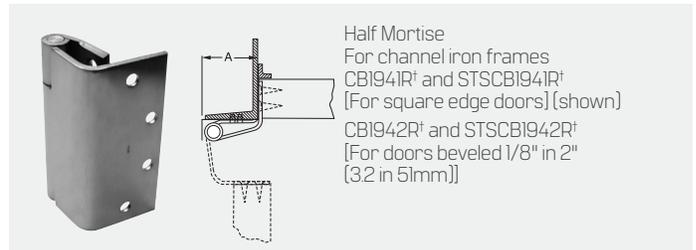
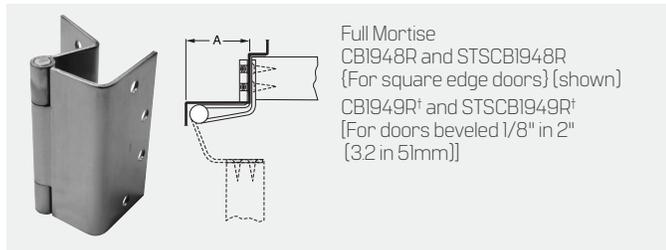
STSCB1941R – [ANSI A522]

STSCB1942R† – [ANSI A522]

STSCB1951R – [ANSI A532]



- For corridor doors to patients' rooms, operating rooms, emergency rooms, or wherever conditions require a completely clear opening in hospitals, institutions or public buildings
- Designed to swing doors completely clear of the opening when door is opened 95°
- Consult factory for hinges available to clear 90°
- Concealed bearing for trouble-free, long life – no oil, no grease, no maintenance
- Pins in nonferrous hinges are stainless steel
- Heavy weight gauges increase available bearing surface area for maximum friction reduction
- Hinges are polished and buffed then plated or phosphated and prime coated
- Hinges can be furnished with hospital tips [HT]
- Full surface and half surface hinges packed with flat head machine screws and grommet nuts for door leaf.
- Specify door thickness, if other than 1 3/4" [44mm]
- Consider using a back plate with full surface and half surface hinges
- For half mortise hinges and full surface hinges to fit narrow metal frames, consult factory
- Limited lifetime warranty
- Reversible flush tips and pins



Class Number	Size Length of Joint	Minimum Clearance Required Dimensions "A"		Gauge of Metal	Flat Head Screws Per Piece		Sets Per Box	Sets Per Case	Case Weight				
		Inches	[mm]		Inches	[mm]			Machine.	Wood	Lbs.	[Kg]	
CB1948R	STSCB1948R	4-1/2	[114]	2-1/8	[54]	.180	[4.6]	4-12-24 x 1/2	4-12 x 11/4 WS	3	15	31	[14]
CB1948R	STSCB1948R	5	[127]	2-1/8	[54]	.190	[4.8]	4-12-24 x 1/2	4-12 x 11/4 WS	3	15	35	[16]
CB1949R†	STSCB1949R†	4-1/2	[114]	2-1/8	[54]	.190	[4.8]	4-12-24 x 1/2	4-12 x 11/4 WS	3	15	31	[14]
CB1949R†	STSCB1949R†	5	[127]	2-1/8	[54]	.190	[4.8]	4-12-24 x 1/2	4-12 x 11/4 WS	3	15	35	[16]
CB1959R	STSCB1959R	5	[127]	2-1/8	[54]	.190	[4.8]	4-12-24 x 1/2	5-1/4-20 x 11/4 MS*	3	15	9	[4]
CB1941R	STSCB1941R	5	[127]	2-1/8	[54]	.190	[4.8]	4-12-24 x 1/2	4-12 x 11/4 WS	3	15	35	[16]
CB1942R†	STSCB1942R	5	[127]	2-1/8	[54]	.190	[4.8]	4-12-24 x 1/2	4-12 x 11/4 WS	3	15	35	[16]
CB1947R	STSCB1951R	5	[127]	2-1/8	[54]	.190	[4.8]	4-12-24 x 1/2	5-1/4-20 x 11/4 MS*	3	15	35	[16]

# 3 Knuckle Full Mortise Hinges

## Standard Weight Plain Bearing

**1900R** – [ANSI A8133] Steel – polished and plated or phosphated and prime coated for painting

**1960R** – [ANSI A2133] Brass or bronze – polished and plated or painted

**1960R (32)** – [ANSI A5133] Stainless Steel – polished

**1960R (32D)** – [ANSI A5133] Stainless Steel – satin finish



- For use on interior or exterior doors without door closers in hospitals, churches, schools, airports, hotels, malls, apartment houses, office buildings, etc.
- All hinges have template screw hole location for use on either wood or hollow metal doors and frames
- Equipped with easily seated, non-rising pins
- Hole in bottom tip for easy pin removal
- Reversible flush tips and pins
- Use anti-friction bearing hinges on high and average frequency doors and all doors equipped with door closers
- Hinges can be furnished with hospital tips (HT)
- Available with exposed tips (ET)
- Available with non-removable pins (NRP)



Inches	[mm]	Inches	[mm]	Machine	Wood	Quantity Per		Case Weight		Case Weight	
						Box	Case	Bronze	Steel		
3-1/2 x 3	[89 x 76]	.123	[3.1]	6 - 10-24 x 1/2	6 - 10 x 1	2	100	60	[27]	64	[29]
3-1/2 x 3-1/2	[89 x 89]	.123	[3.1]	6 - 10-24 x 1/2	6 - 10 x 1	2	100	66	[30]	72	[33]
4 x 3-1/2	[102 x 89]	.130	[3.3]	8 - 12-24 x 1/2	8 - 12 x 1-1/4	3	48	38	[17]	44	[20]
4 x 4	[102 x 102]	.130	[3.3]	8 - 12-24 x 1/2	8 - 12 x 1-1/4	3	48	43	[20]	46	[21]
4-1/2 x 4	[114 x 102]	.134	[3.4]	8 - 12-24 x 1/2	8 - 12 x 1-1/4	3	48	51	[23]	54	[25]
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	30	55	[25]	60	[27]
*5 x 4	[127 x 102]	.146	[3.7]	8 - 12-24 x 1/2	8 - 12 x 1-1/4	3	30	40	[18]	43	[20]
*5 x 4-1/2	[127 x 127]	.146	[3.7]	8 - 12-24 x 1/2	8 - 12 x 1-1/4	3	30	43	[20]	46	[21]
*5 x 5	[127 x 127]	.146	[3.7]	8 - 12-24 x 1/2	8 - 12 x 1-1/4	3	48	46	[21]	51	[23]

\* Not Available in Stainless Steel

## Conversion Tips and Pins

- Converts standard flush tip "CB1900R" and "1900R"
- Available in three styles: Ball, Crown and Steeple
- Same tips fit "CB", "1900R" and "F" line hinge
- Conversion pins are stainless
- Conversion pins accept NRP screw
- Knurl eliminates pin rotation
- For heavy weight consult factory

## Standard Weight Tips and Pins





**CORPORATE HEADQUARTERS**

6161 EAST 75TH STREET  
INDIANAPOLIS, IN 46250 USA

Phone 855-365-2407

**[bestaccess.com](http://bestaccess.com)**

For questions about ordering and to be sure you get the right configuration for your needs, [contact your BEST dormakaba sales representative](#).  
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