- All bolted connections.
- Step by step assembly for columns, beams, joists, bridging and braces.
- Refer to assembly drawing for additional details to your specific structure.
USE ASTM A325 STRUCTURAL BOLTS ONLY
STEP 1

CHANNEL TO COLUMN CONNECTION (SINGLE CHANNEL)

C8 - C10 - C12

⚠️ ASSEMBLE ACCORDING TO THE ORIENTATION INDICATED ON THE INSTALLATION PLAN

![Diagram of Channel to Column Connection (Single Channel)](image)

On C8 only

C14 - C16

⚠️ ASSEMBLE ACCORDING TO THE ORIENTATION INDICATED ON THE INSTALLATION PLAN

![Diagram of Channel to Column Connection (Single Channel)](image)

$\phi 5/8" \times 1 1/4"$ bolts (1 washer)
CHANNEL TO COLUMN CONNECTION (BACK TO BACK CHANNEL)

DC8 - DC10 - DC12

Channels

Connection plate

Column

SIDE VIEW

\( \phi 5/8'' \times 1 \ 3/4'' \) bolts (1 washer)

DC14 - DC16

Connection plate

Column

\( \phi 5/8'' \times 1 \ 3/4'' \) bolts (1 washer)

SIDE VIEW

On C8 only
STEP 2

I-BEAM TO COLUMN CONNECTION (DOUBLE CONNECTION ANGLE)

⚠️ ASSEMBLE ACCORDING TO THE ORIENTATION INDICATED ON THE INSTALLATION PLAN

- "I" Beam
- Connection plate
- Column

ø5/8"x1 3/4" bolts (1 washer)
(or 2 1/4" bolts)

SIDE VIEW

FRONT VIEW
I-BEAM TO COLUMN CONNECTION (MOUNTED TO COLUMN TOP PLATE)

"I" Beam

$\varnothing 5/8" \times 2 \ 1/4"$ bolts (1 washer)

Top plate

Column

SIDE VIEW

SIDE VIEW
STEP 3

JOIST TO BEAM CONNECTION (CANTILEVER SINGLE CHANNEL ASSEMBLY)

C8 - C10 - C12

SIDE VIEW

C14 - C16

SIDE VIEW
JOIST TO BEAM CONNECTION (CANTILEVER BACK TO BACK CHANNEL ASSEMBLY)

C8 - C10 - C12

SIDE VIEW

φ5/8” x 1 3/4” bolts (1 washer)

On C8 only

C14 - C16

SIDE VIEW

φ5/8” x 1 3/4” bolts (1 washer)
JOIST TO BEAM CONNECTION (CHANNEL TO CHANNEL USING WEB ANGLE)

**C8 - C10 - C12**

**ONE SINGLE CHANNEL TO SINGLE CHANNEL USING WEB ANGLE**

\[ \varnothing5/8'' \times 1  1/4'' \text{ bolts} \]

**3 BOLTS WHEN USED WITH C14 OR C16**

\[ \varnothing5/8'' \times 1  1/4'' \text{ bolts} \]

**ONE SINGLE CHANNEL TO BACK TO BACK CHANNELS USING WEB ANGLE**

\[ \varnothing5/8'' \times 1  3/4'' \text{ bolts} \]
JOIST TO BEAM CONNECTION (CHANNEL TO CHANNEL USING WEB ANGLE)

TWO SINGLE CHANNELS TO SINGLE CHANNEL USING WEB ANGLE

\[ \phi 5/8'' \times 1 \text{ in} \times 3/4'' \text{ bolts} \]

TWO SINGLE CHANNELS TO BACK TO BACK CHANNELS USING WEB ANGLE

\[ \phi 5/8'' \times 1 \text{ in} \times 3/4'' \text{ bolts} \]
JOIST TO BEAM CONNECTION (CHANNEL TO CHANNEL USING WELDED CONNECTION PLATE)

SINGLE CHANNEL TO SINGLE CHANNEL USING WELDED CONNECTION PLATE

Ø5/8" x 1 1/4" bolts

OPTION WITH WELDED CONNECTION PLATE AND STIFFENER
JOIST TO BEAM CONNECTION (CHANNEL TO I-BEAM USING WEB ANGLE)

**ONE SINGLE CHANNEL TO SINGLE I-BEAM USING WEB ANGLE**

Ø5/8"x1 3/4" bolts (or 2 1/4")

**TWO SINGLE CHANNELS TO SINGLE I-BEAM USING WEB ANGLE**

Ø5/8"x1 3/4" bolts (or 2 1/4")
BRIDGING

ASSEMBLE ACCORDING TO THE ORIENTATION INDICATED ON THE INSTALLATION PLAN

\[ \varnothing 1/4" \times 1" \text{ hex head tek screw} \]
STEP 4

BRACES (KNEE BRACE TO SINGLE CHANNEL)

BRACES (KNEE BRACE TO BACK TO BACK CHANNEL)

ANGLE (USED FOR SINGLE AND BACK TO BACK CHANNEL)
BRACES (KNEE BRACE TO I-BEAM)

- Welded Tab
- Welded Plate
- Knee Brace

BRACES (CROSS BRACE)

- Fix both angles together with a $\varnothing5/8'' \times 1 3/4''$ bolt
- Install braces back to back with $\varnothing5/8'' \times 1 3/4''$ bolts
BRACES (DOUBLE CROSS BRACE)

Or as specified on your installation drawings (could be Ø3/4”x 1 3/4” bolts)

connection plate
FOR ADEQUATE ANCHORING CONDITIONS, THE ENTIRE SURFACE OF THE BASE PLATE MUST BE IN CONTACT WITH THE CONCRETE SLAB. WHEN CONCRETE SLABS ARE UNEVEN OR UNLEVEL, NON-SHRINK GROUT MUST BE USED TO FILL UNDER BASE PLATES. SHIM PLATES ARE NOT PERMITTED.

**Step 5:ANCHORING**

**Hammer drill a hole**
- same nominal diameter
- and at least as deep as the length of anchors

**Clean hole with blow out bulb**

**Drive the hilti bolt in the hole**
- so that at least 6 threads are below the top surface of fixture.
- Then tighten to the recommended torque value to achieve proper anchor setting

**4 1/2” min for 6” anchor bolts**

**ø5/8”x6” min bolts (anchors) are used for baseplates**