



AUTODESK® REVIT™
DESIGN · CONNECT · OPTIMIZE



ARCH 2431 Building Technology III Steel Assembly & Building Information Modeling (BIM) with Revit

Steel Connections Series

- #1 Introduction to Columns & Beams
- #2 Column Base Plates
- **#3 Photos & Videos – Connections & Fasteners**
- #4 Concrete footing to baseplate connection
- #5 Fin & Splice Plates – Notched Beams
- #6 Diagonal Bracing



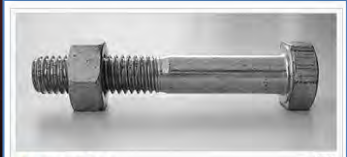
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Technology III

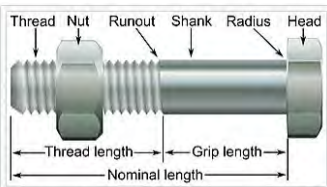
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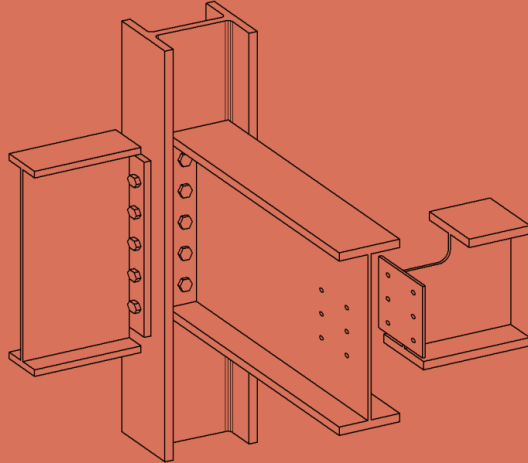
Steel Connections Bolts and Fasteners



Nut and bolt

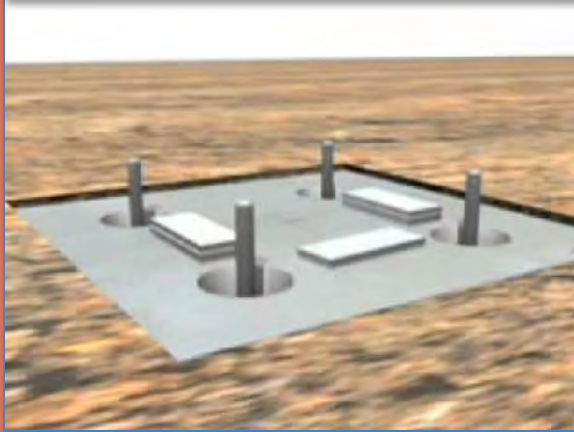


Parts and measurements.



Steel Column and Beam Connection Videos

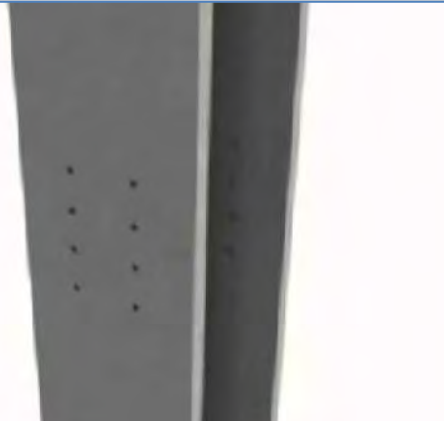
Column Base Plate to Foundation



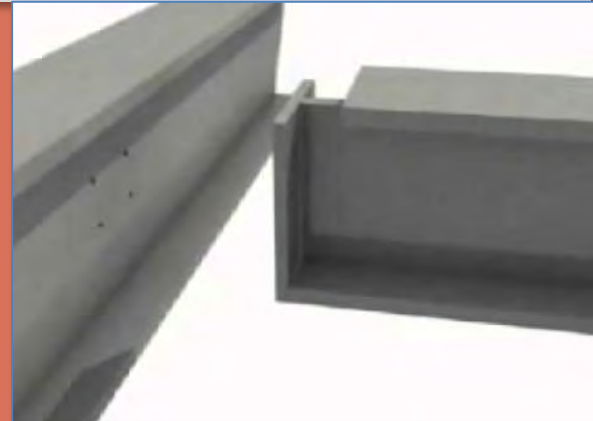
Beam to Column Fin Plate



https://www.steelconstruction.info/Simple_connections#Joint_considerations



Beam to Beam Connection



Beam to Column Connection

Steel
Connections

Fasteners &
Bolts

• Videos

- Column Base Plate to Foundation
- Beam to Column Fin Plate Connection
- Beam to Column Connections
- Beam to Beam Connections

• Steel

Drawings

- Sections & Isometrics

• Connection

Photographs

• Steel Stairs

• Bolts &

Screws

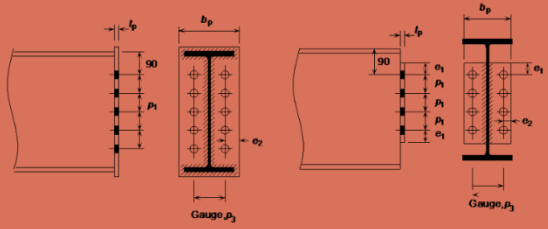
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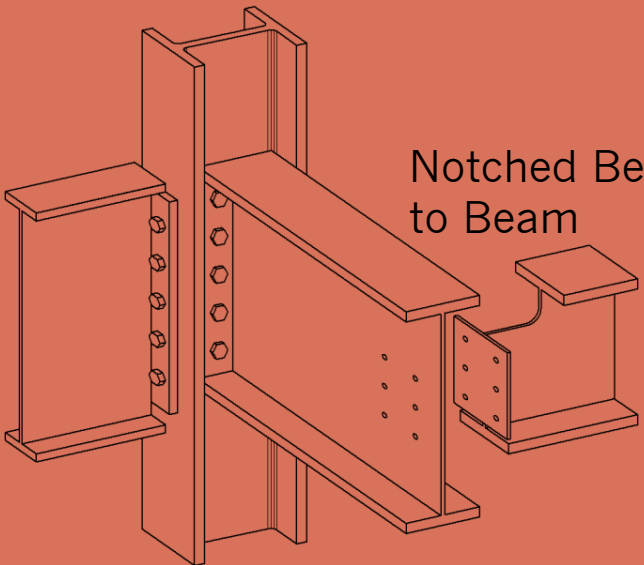
- Videos
 - Column Base Plate to Foundation
 - Beam to Column Fin Plate Connection
 - Beam to Column Connections
 - Beam to Beam Connections

- Sections & Isometrics
- Connection Photographs
- Steel Stairs
- Bolts & Screws

Steel Connection Drawings and Isometrics



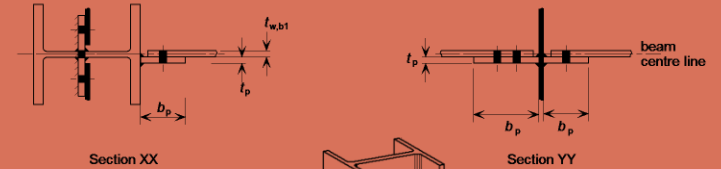
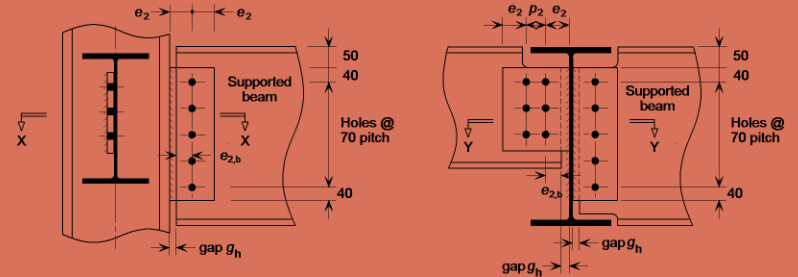
Beam with End Plate



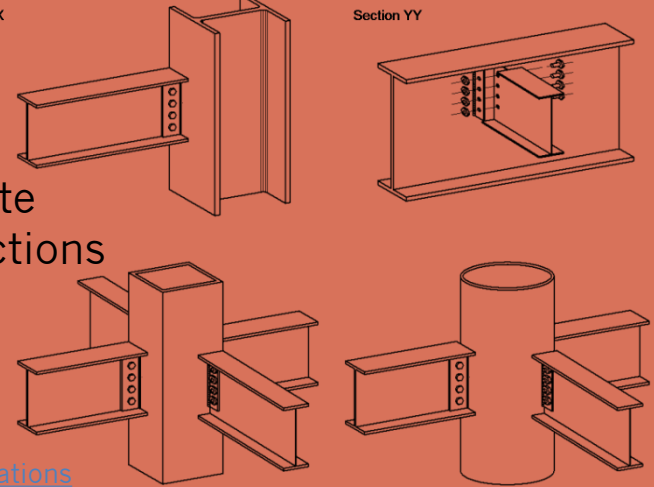
Notched Beam to Beam

Beam to Column

Fin Plate Connections



Fin Plate Connections



Steel Connection Photographs

Photo by Paul King
NYC Seaport



<https://skyciv.com/technical/bolts-vs-welds-vs-rivets-for-steel-connections/>

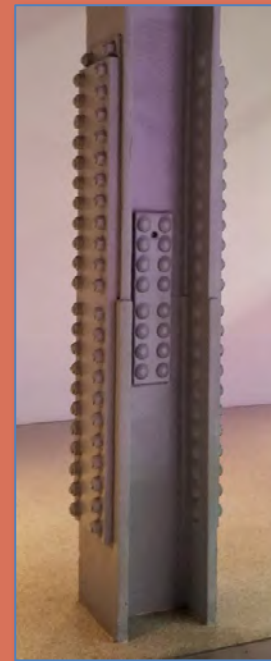


Photo by Paul King – Corning Glass



<https://civil-engg-world.blogspot.com/2011/05/base-plate-for-steel-column.html>



<https://amtecdesigns.com/struct/>



Steel
Connections

Fasteners &
Bolts

• Videos

- Column Base Plate to Foundation
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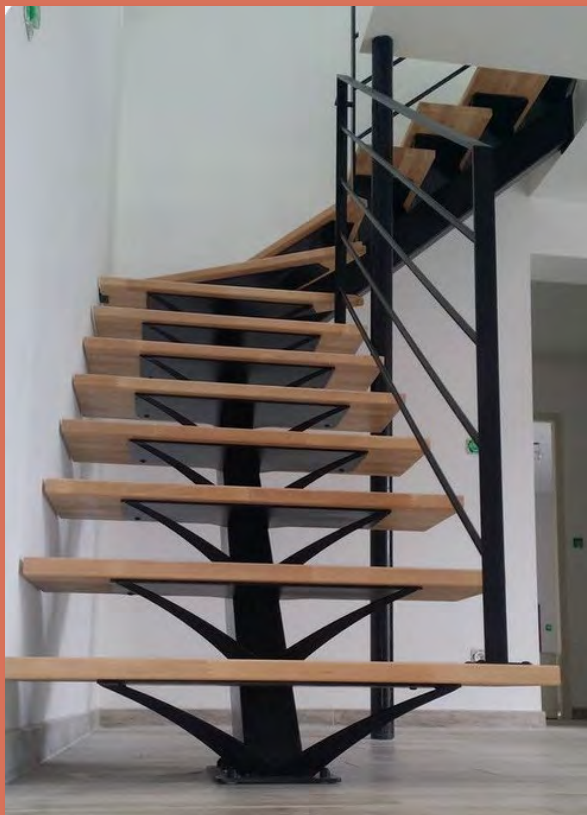
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<https://www.pinterest.com/pin/732116483163841997/>

<https://www.pinterest.com/pin/4313163841997/>

Steel Stairs



<https://www.pinterest.com/pin/443252788327186802/>

<https://www.pinterest.com/pin/260153315961059325/>

<https://www.pinterest.com/pin/732116483163842012/>



Steel Connections

Fasteners & Bolts

Videos

- Column Base Plate to Foundation
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Bolts & Screws

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Assorted washers: flat, split, star and insulating

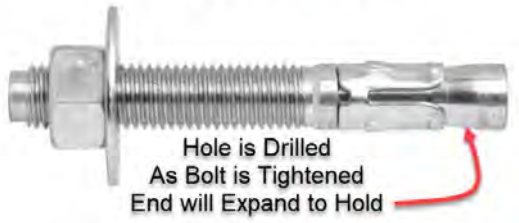
[https://en.wikipedia.org/wiki/Washer_\(hardware\)](https://en.wikipedia.org/wiki/Washer_(hardware))

<https://amtecdesigns.com/struct/>

Metal Fasteners by Am-Tec Designs

FASTENERS

Masonry to Concrete Anchor



Hole is Drilled As Bolt is Tightened End will Expand to Hold

Metal Fasteners by Am-Tec Designs

FASTENERS

Threaded Inserts Embedded into Concrete



Metal Fasteners by Am-Tec Designs

FASTENERS

Flathead - Countersunk Phillips - Allen Bolt Coated



<https://www.globalindustrial.com/p/fasteners/Self-Tapping-Screws/hex-head/self-tapping-screw-8-x-1-12-hex-head-pkg-of-280-itw-teks174-21308>

Self Drilling or Self Taping Screw

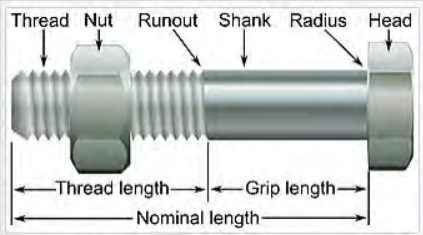
Bolts & Screws



A plain washer and a spring washer are placed on a bolt between the nut (on the threaded end) and the bolt head.



Nut and bolt



Parts and measurements.

[https://en.wikipedia.org/wiki/Bolt_\(fastener\)](https://en.wikipedia.org/wiki/Bolt_(fastener))





That's all Folks!