



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

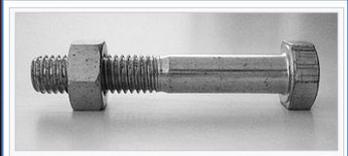
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Building
Technology III

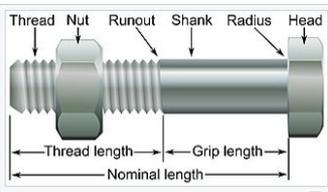
Prof. Paul C. King, Course Coordinator
Prof. Blake Kurasek
Prof. Justin Sherman
Prof. Jieun Yang

Pking@CityTech.Cuny.Edu
Bkurasek@CityTech.Cuny.Edu
Jsherman@CityTech.Cuny.Edu
Jyang@CityTech.Cuny.Edu

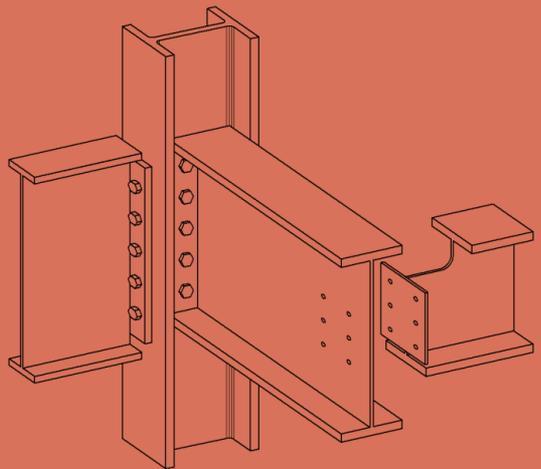
Steel Connections Bolts and Fasteners



Nut and bolt

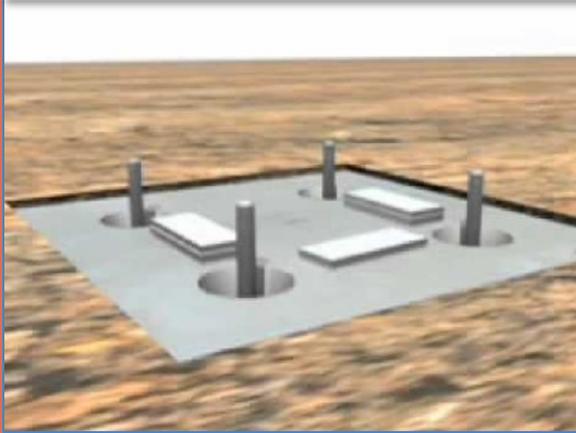


Parts and measurements.



Steel Column and Beam Connection Videos

Column Base Plate to Foundation



Beam to Column Fin Plate

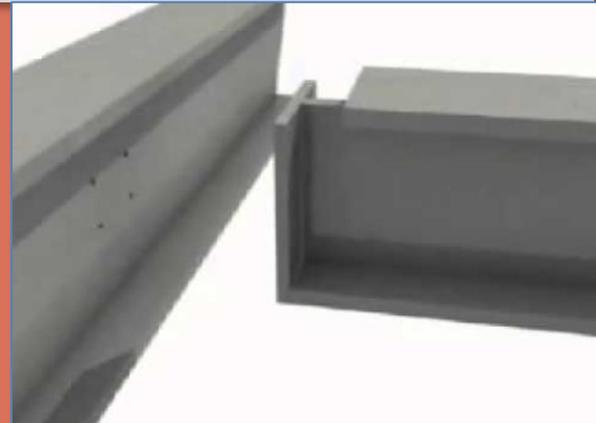


https://www.steelconstruction.info/Simple_connections#Joint_considerations

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

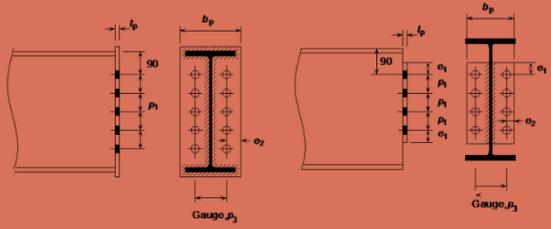
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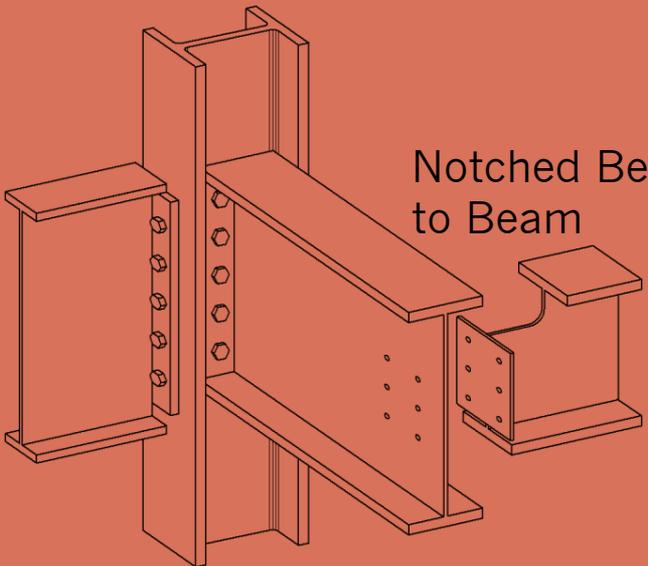
- Videos
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- Connection Photographs
- Steel Stairs
- Bolts & Screws

Steel Connection Drawings and Isometrics

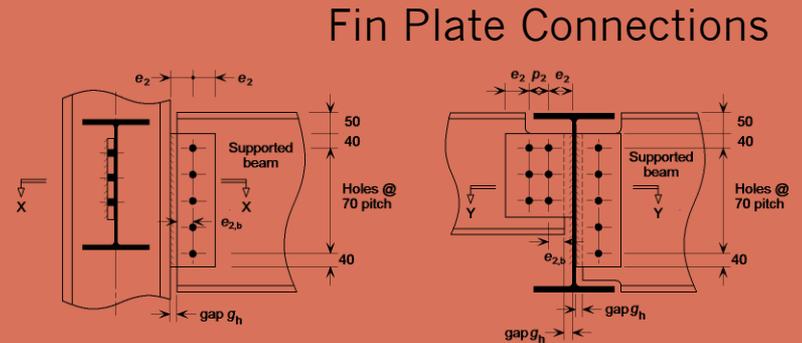


Beam with End Plate

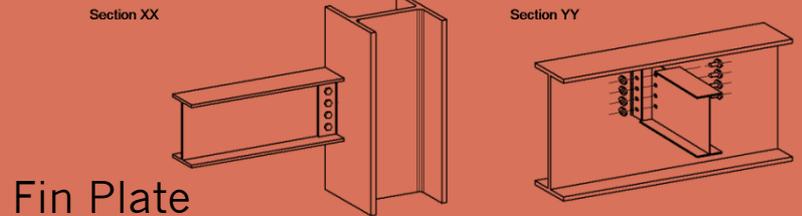


Beam to Column

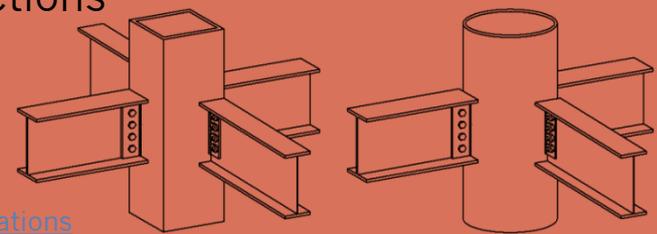
Notched Beam to Beam



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

• Steel

Drawings

- Sections & Isometrics

• Connection
Photographs

• Steel Stairs

• Bolts &
Screws

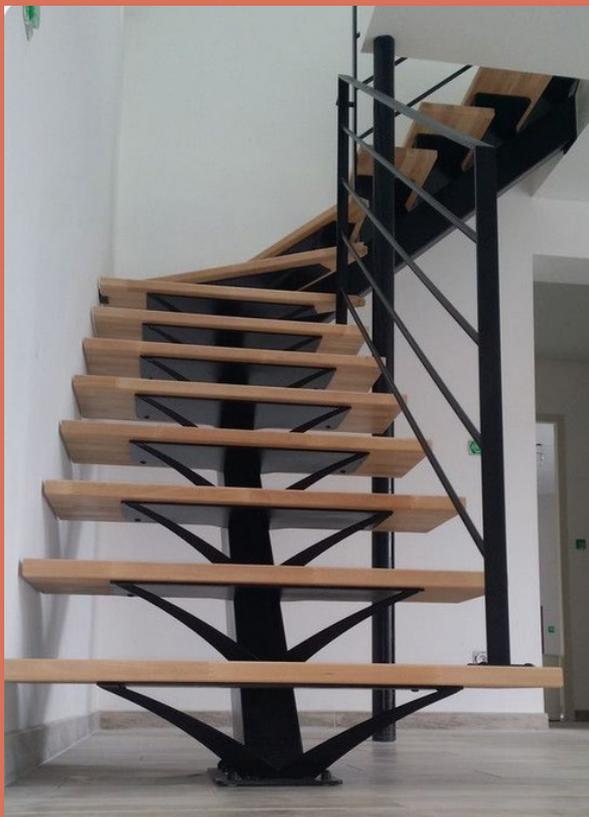
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<https://www.pinterest.com/pin/732116483163841997/>

<https://www.pinterest.com/pin/431430839305098175/>

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
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Building Technology III



Assorted washers: flat, split, star and insulating

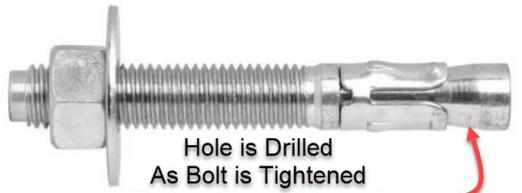
[https://en.wikipedia.org/wiki/Washer_\(hardware\)](https://en.wikipedia.org/wiki/Washer_(hardware))

<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



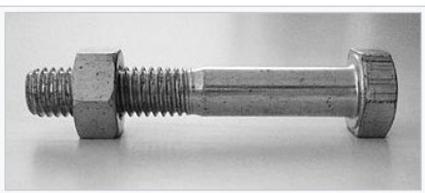
<https://www.globalindustrial.com/p/fasteners/Self-Tapping-Screws/hex-head/self-tapping-screw-8-x-1-12-hex-head-pkg-of-280-itw-teks174-21308>

Self Drilling or Self Taping Screw

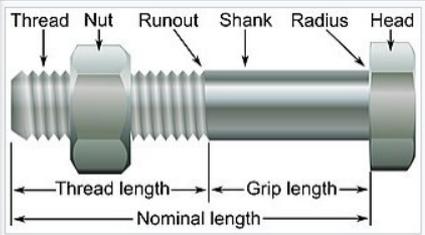
Bolts & Screws



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!