WHEN TO CONSIDER STEEL CASTINGS

You should consider steel castings when you have:

• Architecturally exposed structural steel connections, particularly for structures comprised of HSS or timber.

• Complex Connections owing to geometry, including weld access constraints, heavy section welding, requirements for internal stiffening, etc.

• Specific structural performance requirements including strength, stiffness, fatigue performance, etc.

Whether you are considering standardized components, custom-designed cast steel solutions or you are unsure about whether steel castings are the right fit, it is best to connect with CAST CONNEX before your project goes to tender. The following shares the ideal project progression; however, discussion with CAST CONNEX is welcomed and encouraged for any stage of design or construction.

Contact us at:

info@castconnex.com or
(416) 806-3521

You can also contact one of our dedicated Regional Team Members who will be able to offer support:

USA – West: Brian Miller
b.miller@castconnex.com or
(650) 731-2278

USA – North-East/Global: Jennifer Pazdon
j.pazdon@castconnex.com or
(347) 515-9749

USA – South-East: Suzy Rajamoney
s.rajamoney@castconnex.com or
(214) 989-6471

Canada: Tarana Haque
t.haque@castconnex.com or
(647) 518-1254
DURING SCHEMATIC DESIGN PHASE:

Begin to consider your structural steel connections. Identify locations that may benefit from the use of steel castings – see “When to Consider Steel Castings” or “When and How to Reach Out to Cast Connex for Complimentary Support;”

Contact CAST CONNEX to share preliminary information & sketches. Participate in an exploratory discussion of potential standard or custom-designed cast steel solutions that you can leverage for your design. Discuss approximate project timelines and steel casting lead times. Upon request, CAST CONNEX can provide a rough order of magnitude budgetary estimate during this stage or at any stage of the project.

DURING DESIGN OR CONCEPTUAL DESIGN PHASE:

Whether designing connections or delegating design, determine whether standardized cast steel components or custom-designed steel castings may meet your design needs.

If you are considering a standardized cast steel product:

Contact CAST CONNEX and request product information and digital assets. Share latest drawings and project timelines, and confirm appropriate product sizes and quantities. CAST CONNEX will guide you on how to specify the cast steel product.

If you are considering a custom casting:

Contact CAST CONNEX to discuss scope of steel casting solution. Understand whether lead times associated with custom-designed castings are compatible with project timelines. Share latest drawings and any preliminary connection concepts to convey architectural, structural, and constructability requirements and challenges, and collaborate with CAST CONNEX to iteratively develop an appropriate steel casting solution. CAST CONNEX will guide you on how to specify the custom steel casting. We will provide complimentary cast steel specification language, 3D Models or 2D CAD files for your architectural and structural drawings, and appropriate annotations to include on your details.

PRE-BID:

Confirm the steel castings have been appropriately specified:

• Ensure cast steel specification language is included in Division 05 of contract documents.
• Ensure the steel cast component is shown diagrammatically and that lead information is provided on drawings.
• Contact CAST CONNEX and share drawings; we can review to confirm the information is appropriately conveyed for tendering.

CONTRACT AWARD:

The successful contractor (typically steel fabricator) will formally engage CAST CONNEX by providing a purchase order and/or authorization to proceed on the basis of CAST CONNEX’s project proposal. The following interactions are typically completed between the contractor and CAST CONNEX:

If you have specified standardized cast steel components:

CAST CONNEX will coordinate product information including datasheets, sample welding procedure, installation instructions and best practices. Engineering calculations are available upon request. CAST CONNEX will deliver products and will offer to review pertinent shop drawings to aid in the successful integration of the castings. We will remain available to address questions and concerns through construction.

If you have specified custom castings:

CAST CONNEX will typically submit an RFI through the awarded steel contractor for additional loading information*. CAST CONNEX will complete structural analysis and finalize this casting design; develop as-cast and machining shop drawings, and submit for approval. Upon approval of engineering report and shop drawings, CAST CONNEX will launch tooling & production activities as required. CAST CONNEX will make a First Article casting available for approval or incorporation into a project mock-up. Upon the approval of the First Article, remaining production components will be manufactured and delivered. CAST CONNEX will coordinate casting information including 3D models and shop drawings. We will provide all submittals per the casting specification and remain available to address questions and concerns through construction.

DURING TENDER PROCESS:

CAST CONNEX will provide formal proposals to bidders. We may request a list of bidders from you.

CAST CONNEX will typically reach out to all parties intending to bid to bring their attention to the components and to share relevant information.

Steel fabricators can apply risk factors to their pricing for unfamiliar products. Our goal is to remove that uncertainty to allow teams to offer appropriate pricing for our components.

Steel castings are not a typical construction item, and with limited time to bid projects, teams may omit the castings from their bid. Our goal is to help ensure the components are not omitted and your architectural and structural intent is maintained.

If you are considering a standardized cast steel product:

Contact CAST CONNEX and request product information and digital assets. Share latest drawings and project timelines, and confirm appropriate product sizes and quantities. CAST CONNEX will guide you on how to specify the cast steel product.

If you are considering a custom casting:

Contact CAST CONNEX to discuss scope of steel casting solution. Understand whether lead times associated with custom-designed castings are compatible with project timelines. Share latest drawings and any preliminary connection concepts to convey architectural, structural, and constructability requirements and challenges, and collaborate with CAST CONNEX to iteratively develop an appropriate steel casting solution. CAST CONNEX will guide you on how to specify the custom steel casting. We will provide complimentary cast steel specification language, 3D Models or 2D CAD files for your architectural and structural drawings, and appropriate annotations to include on your details.

VALUE ENGINEERING:

Should your project require this step:

Contact CAST CONNEX for ideas as to how to reduce cost or for alternative casting design solutions. Contractors and steel fabricators may not be aware of potential cost savings options or alternative casting designs, and they may not realize they can ask. We can offer solutions to the design team to help maintain architectural quality and structural integrity.

COMPLETE PROJECT:

Share project photos, and CAST CONNEX will share your success story.