

HSS

HOLLOW STRUCTURAL SECTIONS

We proudly represent the manufacturers of carbon steel tubing and our tireless goal is to move the industry forward, revealing the wealth of possibilities afforded by designing with HSS. Go to steeltubeinstitute.org to explore our robust library of resources and see inside for an overview of our offerings.

THE CAPABILITY TOOL



Our HSS Capability Tool was designed to help specifiers and those within the steel supply chain locate producers of specific sizes of hollow structural sections (HSS). It's easy to use and offers valuable guidance to keep your project on track.

1. Designate the size or range.
2. Indicate the material grade (A500 B/C, A1085 or A1065).
3. Click the search button to see a chart displaying the sizes of HSS that are produced by STI member companies.
4. Click the symbol to see producer details and get their contact information.

LIMIT STATE TABLES

The AISC 360-16 Specification has significant changes to Chapter K. To help designers navigate these changes, we created Limit State Tables available for download in the Resource Library at steeltubeinstitute.org.

SHEAR

Single Plate, Through Plate, Single Angle, Double Angle, WT, Unstiffened Seat, Stiffened Seat

TRUSS

Round HSS-to-HSS Truss Connections, Rectangular HSS-to-HSS Truss Connections

AXIAL

Plate-to-Round HSS Connections, Plate-to-Rectangular HSS Connections

MOMENT

Round HSS-to-HSS Moment Connections, Rectangular HSS-to-HSS Moment Connections

EARN PDHS WITH OUR 2021 WEBINARS



You can earn PDHs and gain valuable information on designing with HSS through our webinars. All six of our 2021 live sessions are packed with technical content and delivered by licensed structural engineers. Register as an individual for \$95, a group for \$300 or a Professional Member for **free**.

May 5	Advantages of Closed Sections in Torsion and Compression
June 2	AESS Considerations Exposed
July 14	Yield-Line Analysis in Practice
October 6	HSS Connection Design Software
November 10	Unordinary Tubular Connections
December 1	Tube-to-Tube Design Examples

HSS DESIGN MANUALS



All of our publications are conveniently available in printed and digital formats based on your preference. HSS Professional Members receive special discounts on HSS design manuals. Here's an overview of the contents.

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Volume 1: Section Properties and Design Information

- Section properties (both reduced and unreduced wall thicknesses)
- Material specs for ASTM A500, A1085, A847, A252 and A1065
- Fireproofing, architectural considerations, tolerances and seismic

2

Volume 2: Member Design (2016)

- Design discussion
- Examples and capacity tables for:
 - Columns (both unfilled and concrete filled)
 - Beams
 - Tension members
 - Torsion

3

Volume 3: Connections at HSS Members (2010 and 2016)

- Design discussion
- Examples and capacity tables for:
 - WF Beam to HSS Column Shear Connections
 - WF Beam to HSS Column Moment Connections

4

Volume 4: Truss and Bracing Connections (2010 and 2016)

- Design discussion
- Examples and capacity tables for:
 - Truss Connections (HSS-to-HSS)
 - HSS Bracing Connections

	HSS Professional Member		Non-Member	
	Digital	Print	Digital	Print
Volume 1	Free	\$35	\$35	\$55
Volumes 2, 3 and 4	\$35	\$60	\$60	\$100

HSS CONNEX

Accessible to any of our Professional Members, HSS Connex is a web-based tool that offers designers a simple way to check HSS wall thicknesses and make the HSS connection design process more efficient. While the program does not design the components (plates, bolts, etc.), it does evaluate the HSS wall thicknesses to ensure adequacy according to AISC 360-16, Chapter K. This is a great tool for EORs who are delegating their connection design or for fabricator engineers currently in the bid process and looking to find out whether reinforcing will be required. You can find this and other member benefits listed on the back cover.

ABOUT THE STEEL TUBE INSTITUTE

Since 1930, the Steel Tube Institute (STI) has been a forward-thinking industry leader. Today, we remain focused on increasing product demand across North America. Through the collaborative strength of our members and fellow leaders, we are able to overcome barriers, elevate standards and maximize opportunities for innovation. Every day, we work tirelessly to create unprecedented value for our members and for our customers.

HSS PRODUCING MEMBERS



Atlas Tube Inc.



H.W. Metals



Maruichi American Corporation



Maruichi Leavitt Pipe & Tube



Maruichi Oregon Steel Tube LLC



Nucor Tubular Products



Searing Industries Inc.



Vest Inc.



Valmont Industries Inc.

BECOME A MEMBER

Our HSS Professional Membership grants structural engineers, architects, fabricators and anyone interested in HSS access to the latest technical resources and educational opportunities — all in one place.

For an annual fee of \$125, Professional Members receive:

- A free download of the HSS Design Manual: Volume 1
- Discounted pricing for HSS Design Manuals: Volume 2, Volume 3 and Volume 4
- All printed volumes available at a discounted fee
- Exclusive resources, tools and technical information
- One free registration to each of our six HSS live webinars (individual registration only) per Professional Membership year (a \$570 value and each completed webinar offers 1 PDH credit)
- Access to HSS Connex for connection design confirmation
- Access to HSS-specific connection design aids



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