

## Have You Heard?

# New HSS Spec Makes Design Easier!

In the 2nd quarter of 2013, a new ASTM specification will result in the production of an improved Hollow Structural Sections (HSS). This new specification provides improved performance that makes HSS design easier and potentially more effective for the client.

Some of the benefits of the new specification are:

### **Tighter material tolerances and a single minimum yield stress of 50 ksi**

- More stringent wall tolerances and the addition of a mass tolerance mean the full nominal wall thickness can be used for design of HSS. This means no longer needing to reduce the nominal wall thickness by 0.93 as prescribed in the AISC Steel Construction Manual for both member selection and connection design.
- More area available for design and a higher min yield means that HSS are more economical and more efficient.

### **Maximum specified yield stress of 70 ksi**

- The maximum yield will result in a lower expected yield strength and reduce capacity design requirements and column required strengths in seismic designs.
- This is the only specification used in North America or Europe that limits the maximum yield stress in HSS.

### **Standard requirement for Charpy notch toughness**

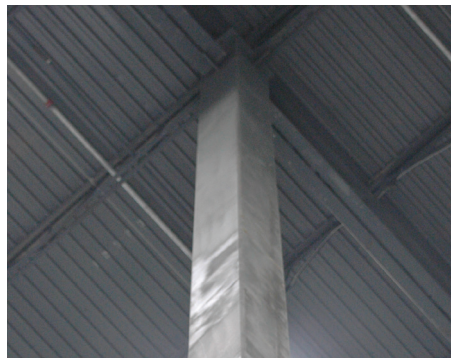
- New specification will require all HSS to meet a minimum CVN value of 25 ft-lb @ 40° F, which corresponds to AASHTO Zone 2.
- Having the minimum CVN required makes HSS more suitable for use in dynamically loaded structures.

Inquire with domestic HSS producers  
and your local service center about price and availability.  
For more information, log on to [\*\*www.aisc.org/hss\*\*](http://www.aisc.org/hss).





	<b>ASTM A500-10 Gr. B</b>		<b>New ASTM Specification</b> <i>(number to be determined)</i>	
Scope	Cold-formed welded & Seamless		Cold-formed welded	
Max Perimeter	88"		88"	
Thickness range	$t < 0.875"$		$0.148" < t < 0.875"$	
Yield Stress	Round	42ksi min	All Shapes	50ksi min
	Sq/Rect	46ksi min		70ksi max
Tensile Stress	Round	58ksi min	65ksi min	
	Sq/Rect	58ksi min		
Wall thickness	-10%		-5%	
Mass Tolerance	N/A		-3.5%	
Corner Radii (Rectangular and Square HSS)	$r < 3t$		$t \leq 0.400"$	1.6t to 3.0t
			$t > 0.400"$	1.8t to 3.0t
CVN	N/A		25 ft-lbs@40° F	
Supplemental requirements	N/A		Optional heat-treating	
			Optional varying CVN	



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