Office of Materials

Matls. IM 451.01

#### REINFORCING STEEL SUPPORTS

### **GENERAL**

Supports for reinforcing steel in Section 2404.07 come in various sizes and types. These types have specific names such as slab bolsters, high chairs or continuous high chairs. The supports are used to hold reinforcing steel in place while concrete is being placed. They are typically made of small diameter steel rods, steel wire, or various shapes of molded plastic.

Table 1 identifies the various configurations of steel wire supports available. Table 2 lists the minimum sizes of steel wire required for the supports. Approval is based on meeting the minimum wire diameter sizes listed in Table 2.

Also, this IM provides an approved list of plastic supports.

Steel wire supports requiring a coating of PVC shall meet the requirements of ASTM A-933. Steel wire supports requiring a coating of Epoxy shall meet the requirements of ASTM A-884

### **APPROVAL PROCESS**

A manufacturer of plastic supports, wishing to obtain approval shall submit the following to the Iowa Department of Transportation, Office of Materials, 800 Lincoln Way, Ames, IA 50010:

- 1. Technical Product Information
- 2. Samples:

For individual chairs - 5 pieces For continuous support - 10 lineal feet (3 m)

#### **TESTING PROCEDURE**

The testing procedure involves determining a point load limit for all supports and also a linear load limit for continuous devices.

The point load limit is determined by placing a #4 (#10 M) reinforcing bar on the support. The support is then placed on a 3/4 in. (19 mm) piece of fir plywood. A load is applied to the bar at a rate of 0.5 in. (13 mm) deflection per minute until the support fails. Point loads are determined at the weakest point on continuous supports.

The linear load limit is determined by placing a 1 ft. (300 mm) long plate on top of the continuous support. The support is again placed on a 3/4 in. (19 mm) piece of fir plywood and loaded at 0.5 in. (13 mm) deflection per minute until the support fails.

The supports fail in one of three principle ways:

- 1. Breaking
- 2. Excessive bending or deformation more than 1/2 in. (13 mm)
- 3. Excessive gouging into the plywood more than 0.1 in. (2.5 mm)

### **ACCEPTANCE**

Steel supports will be accepted based on meeting the minimum wire diameter based on the type and size as listed in Tables 1 and 2. There is not an approved suppliers list for steel supports.

Plastic supports will be accepted based on approved brands as noted in Appendix A.

### **MONITOR SAMPLING & TESTING**

Samples may be secured from the project and tested to verify compliance.

# TABLE 1 METRIC - TYPICAL TYPE & SIZES OF WIRE BAR SUPPORTS

SAR SUPPORT ILLUSTRATION  SAR SUPPORT LILLSTRATION  SAR SUPPORT TYPE OF TYPE O					
SBU*	SYMBOL	BAR SUPPORT ILLUSTRATIONS	BAR SUPPORT ILLUSTRATION PLASTIC CAPPED OR DIPPED		TVDICAL CIZO
BBU*  SBU*  Same as 8B  DIPPED  DIPPED  DIPPED  CAPPED  Same as BB  CAPPED  Same as BB  DIPPED  DIPPED  DIPPED  CAPPED  CAPPED  CAPPED  Same as BB  CAPPED  Same as BB  CAPPED  CAPPED			I DO NO CALLED ON DIFFED		
SBU*  SBU*  Same as SB  Beam Botster  Left management of smm in increments of smm heights in increments of smm heights of 1.5 mm heights o	l			John Donald	
SBU*  Same as SB  Beam Bolster Upper  DIPPED  Beam Bolster Upper  Bolster Upper  Beam Bolster Upper  Bolster Up				1	
Slab Bolster Upper  Same as SB Upper  Same as SB Upper  Same as SB Upper  Same as SB Upper  Same as BB Upper  Same as BB Upper  Same as BB Upper  Joint Chair  Joint Chair  Joint Chair  Aby Chair for So 375 mm heights in increments of 5mm Increments of 5mm  High Chair for So 30 375 mm heights in increments of 5mm  CAPPED  CAP		125 mm	125 mm	1	
BBU*  Beam Boister  CAPPED  Beam Boister  Upper  Beam Boister  Same as BB  Upper  Individual  Bear Chair  Same as BB  Upper  As min heights  Individual  Bear Chair  As min heights  Individual  Bear Chair  As min heights  Individual  High Chair  Individual  High Chair for Metal Deck  Individual  High Chair for Metal Deck  Individual  Individ				1	
BBU*  BBU*  BBU*  BBU*  BBAM Bolster  Upper  BC  DIPPED  DIPPE	SBU*			Slab Bolster	Same as SB
BBUT  BBUT  BBUT  BBUT  BBUT  BBUT  BBUT  BBABM Bolster  Upper  Upper  BBAM Bolster  Upper  Upper  BBAM Bolster  Upper  Individual  Bar Chair  JOI, 25 and 150 mm heights  of 5 mm heights  in increments of 5 mm  CHCU  CAPPED  CAPPED  CAPPED  CAPPED  COntinuous  High Chair or heights in increments  of 5 mm  CHCUP  COntinuous  High Chair or heights in forements  of 5 mm  JOINT 15 mm heights  in increments of 5 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm heights  in increments of 5 mm  JOINT 15 mm heights  of 5 mm heights  in increments of 5 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm  JOINT 15 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm  JOINT 15 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm	İ			Upper	
BBUT  BBUT  BBUT  BBUT  BBUT  BBUT  BBUT  BBABM Bolster  Upper  Upper  BBAM Bolster  Upper  Upper  BBAM Bolster  Upper  Individual  Bar Chair  JOI, 25 and 150 mm heights  of 5 mm heights  in increments of 5 mm  CHCU  CAPPED  CAPPED  CAPPED  CAPPED  COntinuous  High Chair or heights in increments  of 5 mm  CHCUP  COntinuous  High Chair or heights in forements  of 5 mm  JOINT 15 mm heights  in increments of 5 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm heights  in increments of 5 mm  JOINT 15 mm heights  of 5 mm heights  in increments of 5 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm  JOINT 15 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm  JOINT 15 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm  High Chair or heights in forements  of 5 mm  JOINT 15 mm				1	
BBU*  Beam Boister Upper Same as BB  DIPPED	1	125 mm		1	
BBU*  Beam Boister Upper Same as BB  DIPPED					
BBU*  BEARM Boister Upper  Individual S mm is lengths of 1.5 m lengths and 20. 25, 40 and 45 mm heights and 20. 25, and 40 mm heights linicrements of 5 mm lengths leng	88			Beam Bolster	
BBU*  BBC  DIPPED  DIP		AN WIN		1	
BBU*  Beam Bolster Upper  DIPPED  DIPPED  Joist Chair  Joint Chair  Joist Chair  Joyen  Joyen  Joist Chair  Joyen  Joyen  Joist Chair  Joyen			20 80 6 B	j	
BBC  DIPPED  DIPPED  Joist Chair  Joist Chai		65mm USmm	Comme with		engins of 1.5 m
BC  DIPPED  DIPPED  Joist Chair  JO, 125 and 150 mm widths and 20, 25, and 40 mm heights  Individual Bar Chair  Joist Chair  Joyan Joyan Joist Chair  Joyan Joyan Joist Chair  Joyan Joyan Joist Chair  Joyan Joya			CAPPED	<u> </u>	
BC  DIPPED  DI	BBU*				Same as BB
BC  DIPPED  DIPPED  Joist Chair  JOI, 125 and 150 mm widths and 20, 25, and 40 mm heights  Individual Bar Chair  Joist Chair  Joist Chair  Joist Chair  Joist Chair  Joist Chair  Joint Cha				Upper	
BC  DIPPED  DIPPED  Joist Chair  JOI, 125 and 150 mm widths and 20, 25, and 40 mm heights  Individual Bar Chair  Joist Chair  Joist Chair  Joist Chair  Joist Chair  Joist Chair  Joint Cha					
DIPPED  DIPPED  DIPPED  DIPPED  DIPPED  DIPPED  Individual High Chair for Metal Deck  CAPPED  CAPPED  CAPPED  CAPPED  COntinuous High Chair for Metal Deck  Continuous High Chair in increments of 5 mm  CHCU*  COntinuous High Chair for Metal Deck  CONTINUOUS HIGH CHAIR FOR METAL FO		Remm remm			
DIPPED  DIPPED  DIPPED  DIPPED  DIPPED  DIPPED  Individual High Chair for Metal Deck  CAPPED  CAPPED  CAPPED  CAPPED  COntinuous High Chair for Metal Deck  Continuous High Chair in increments of 5 mm  CHCU*  COntinuous High Chair for Metal Deck  CONTINUOUS HIGH CHAIR FOR METAL FO		× .		<b>1</b>	
DIPPED  DIPPED  DIPPED  Individaul High Chair  CAPPED	ы				
JOIST Chair  JOIST Chair  JOIST Chair  100, 125 and 150 mm widths and 20, 25, and 40 mm heights  Individual High Chair for Metal Deck  HCM*  High Chair for Metal Deck  CAPPED  CAPPED  CAPPED  CAPPED  CAPPED  CAPPED  COntinuous  High Chair for Metal Deck  COntinuous  Light Same as CHC  Light Same a				Jai Chair	nm negnts
JOIST Chair  JOIST Chair  JOIST Chair  100, 125 and 150 mm widths and 20, 25, and 40 mm heights  Individual High Chair for Metal Deck  HCM*  High Chair for Metal Deck  CAPPED  CAPPED  CAPPED  CAPPED  CAPPED  CAPPED  COntinuous  High Chair for Metal Deck  COntinuous  Light Same as CHC  Light Same a		ي لات	ا ١٠٠٠٠٠٠ الحال	1	
HCM*  Individual High Chair So to 375 mm heights in increments of 5 mm  High Chair for Metal Deck  CAPPED  CAP			DIFFED S		
HCM*  CAPPED	JC			Joist Chair	
HCM*  High Chair for Metal Deck  CAPPED  CAPPE				i	
HCM*  CAPPED				Į	and 40 mm neights
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HCM*  CAPPED		Ü	DIPPED UPPED U	[	
HCM*  High Chair for Metal Deck  CAPPED  CAPPED  CAPPED  CAPPED  CAPPED  CAPPED  CAPPED  COntinuous  High Chair for Metal Deck  Continuous  Alore 25 mm span  High Chair for Metal Deck  Continuous  Support  CONTINUOUS  Alore 350 mm span  High Chair for Metal Deck  Continuous  Support  Alore 350 mm span  High Chair for Metal Deck  Continuous  Support  Alore 350 mm span  High Chair for Metal Deck  Alore 350 mm span  High	HC		United U DIFFED		
CHCU*  CAPPED  COntinuous High Chair Upper  Continuous High Chair tor Metal Deck  Continuous High Chair tor Metal Deck  Continuous High Chair Upper  Continuous High Chair Upper  Continuous High Chair Dipper  Continuous High Chair Dipper  Continuous High Chair Neights in increments of 5 mm  Continuous Support  Alo to 300 mm in increments of 5 mm			$\sim$		50 to 375 mm heights
HCM*  High Chair for Metal Deck  Continuous In increments of 5mm  CHCU*  CAPPED  CAPPED  CAPPED  COntinuous High Chair  Continuous High Chair  Upper  Continuous High Chair for Metal Deck  Continuous High Chair for Metal De		1 (0) 1		i riigii Chaii	
HCM*  High Chair for Metal Deck  CHC  Continuous High Chair for Metal Deck  Continuous High Chair Upper  CHCU*  Continuous High Chair or Metal Deck  Continuous High Chair or Metal Deck  Continuous High Chair or Metal Deck  Up to 125 mm heights in increments of 5 mm  JCU**  JCU**  JCU**  JCU**  JCU**  JOINT LAIR AND		.	1		
HCM*  High Chair for Metal Deck  CHC  Continuous High Chair for Metal Deck  Continuous High Chair Upper  CHCU*  Continuous High Chair or Metal Deck  Continuous High Chair or Metal Deck  Continuous High Chair or Metal Deck  Up to 125 mm heights in increments of 5 mm  JCU**  JCU**  JCU**  JCU**  JCU**  JOINT LAIR AND		11 21 11 11	1	j	
High Chair for Metal Deck  CHC  CHC  Continuous High Chair  Continuous High Chair  Chair Upper  CHCM*  Continuous High Chair  Continuous High Chair for Metal Deck  Continuous High Chair Upper  Al Continuous High Chair Upper  Continuous High Chair Upper  Continuous High Chair Upper  Al Continuous High Chair Upper  Continuous High Chair Upper  Al Continuous High Chair Upper  Continuous High Chair Upper  Al Continuous High Chair Upper  Continuous High Chair Upper  Al Continuous High Chair Upper  Continuous High Chair Upper  Al Continuous High Chair Upper  Al Continuous High Chair Upper  Continuous	ł		CAPPED 4 4 4		
CHCU*  CAPPED	HCM*	~		High Chair for	50 to 375 mm heights
CHCU*  CAPPED  CAPPED  COntinuous High Chair Upper  Continuous High Chair for heights in increments of 5 mm  CHCM*  CONTINUOUS High Chair for heights in increments of 5 mm  CHCM*  Continuous High Chair for heights in increments of 5 mm  CCS  Continuous  Continuous  Continuous High Chair for heights in increments of 5 mm  CCS  Continuous  CCOntinuous  CCO					
CHCU*  CAPPED  CAPPED  CONTINUOUS  High Chair  Upper  Continuous  High Chair  Up to 125 mm  heights in increments of 5 mm  Continuous  A JOUR Same as CHC  Upper  JOUR Same as CHC  Upper  Lip to 125 mm  heights in increments of 5 mm  JOUR Same as CHC  Continuous  High Chair  Upper  Lip to 125 mm  heights –25 mm thru  +90 vary in 5 mm  increments  Continuous  40 to 300 mm in  increments of 5 mm		// // 1/ 1/			)
CHCU*  CAPPED  CAPPED  CONTINUOUS  High Chair  Upper  Continuous  High Chair  Up to 125 mm  heights in increments of 5 mm  Continuous  A JOUR Same as CHC  Upper  JOUR Same as CHC  Upper  Lip to 125 mm  heights in increments of 5 mm  JOUR Same as CHC  Continuous  High Chair  Upper  Lip to 125 mm  heights –25 mm thru  +90 vary in 5 mm  increments  Continuous  40 to 300 mm in  increments of 5 mm	}	ן עין י		i	1
CHCU*  CAPPED  CAPPED  CONTINUOUS  High Chair  Upper  Continuous  High Chair  Up to 125 mm  heights in increments of 5 mm  Continuous  A JOUR Same as CHC  Upper  JOUR Same as CHC  Upper  Lip to 125 mm  heights in increments of 5 mm  JOUR Same as CHC  Continuous  High Chair  Upper  Lip to 125 mm  heights –25 mm thru  +90 vary in 5 mm  increments  Continuous  40 to 300 mm in  increments of 5 mm	,	y u		1	
CHCU*  CAPPED  CAPPED  CAPPED  COntinuous  High Chair  Continuous  High Chair  Upper  Continuous  High Chair for Metal Deck  DIPPED  JOST LAN  JOST Chair  Upper  JOST Chair  Upper  JOST Chair  JOST Chair  Upper  JOST Chair   CHC			Continuous	Same as HC in 15	
CHCU*  CHCU*  CAPPED  Communous  High Chair  Upper  Continuous  High Chair for Metal Deck  Of 5 mm  Communous  High Chair for Metal Deck  JCU**  JCU**  JCU**  JOST BLAN  LE 10 m  JOST Chair  Upper  JOST BLAN  LE 10 m  JOST Chair  Upper  JOST BLAN  JOST Chair  Upper  JOST BLAN  JOST Chair  Upper  Autom Jost Chair	- 1				
CHCU*  CHCM*  CHCM*  Continuous High Chair Upper  Continuous High Chair for Metal Deck  Continuous Joist Chair Upper  Continuous High Chair for Metal Deck  Continuous Joist Chair High Is a span heights – 25 mm thru +90 vary in 5 mm increments  Continuous Joint Chair Upper  Continuous Support  Continuous Holo 300 mm in increments of 5 mm			i		
CHCU*  CHCM*  CHCM*  Continuous High Chair Upper  Continuous High Chair for Metal Deck  Continuous Joist Chair Upper  Continuous High Chair for Metal Deck  Continuous Joist Chair High Is a span heights – 25 mm thru +90 vary in 5 mm increments  Continuous Joint Chair Upper  Continuous Support  Continuous Holo 300 mm in increments of 5 mm		. a . ll		İ	1
CHCU*  CHCM*  CHCM*  Continuous High Chair Upper  Continuous High Chair for Metal Deck  Continuous Joist Chair Upper  Continuous High Chair for Metal Deck  Continuous Joist Chair High Is a span heights – 25 mm thru +90 vary in 5 mm increments  Continuous Joint Chair Upper  Continuous Support  Continuous Holo 300 mm in increments of 5 mm	-	1 200 mm	##	1	
CHCM*    Continuous   Up to 125 mm   High Chair for Metal Deck   Up			CAPPED 200 mm	l	
CHCM*  Continuous High Chair for Metal Deck  JCU**  JCU**  JCU**  JOINT LAS 10 M Joist Chair Upper Heights in increments of 5 mm  JOINT LAS 150 mm Joist Chair Upper Heights –25 mm thrus +90 vary in 5 mm increments  CS  Continuous 40 to 300 mm in increments of 5 mm	CHCU*				Same as CHC
CHCM°  Continuous High Chair for Metal Deck  Top of that # 10 m  Joist Chair Upper  Heights -25 mm thru +90 vary in 5 mm increments  Continuous 40 to 300 mm in increments of 5 mm	]	// // // // //			
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Continuous High Chair for Metal Deck  JCU**  JCU**  JCU**  JOST NAM  JOST Chair Upper  Joint Chair Upper  Autom Joint Chair Upper	į				
JCU**  JCU**  JCU**  JCU**  JOINT LAI  JOINT	0110111	200mm			
JCU***  JCU***  JCU***  JCU***  JOST Chair  Upper  Joist Chair  Upper  Heights -25 mm thru +90 vary in 5 mm increments  Continuous  Support  JOST Chair  JOST Chair  Support  JOST Chair	CHCM			Continuous	
JCU**  1 Crosoft 1.48 ± 10 m  1 Somm span  1	. 1				heights in increments
Upper heights -25 mm thru +90 vary in 5 mm increments  CS  Continuous 40 to 300 mm in Support increments of 5 mm	ļ	//    //		metal Deck	o a mm
Upper heights -25 mm thru +90 vary in 5 mm increments  CS  Continuous 40 to 300 mm in Support increments of 5 mm	1	"   "		i	i
Upper heights -25 mm thru +90 vary in 5 mm increments  CS  Continuous 40 to 300 mm in Support increments of 5 mm	100		 		
CS Continuous 40 to 300 mm in increments of 5 mm	JCU**	1 - E 700 07 8148 # 10 m	10 m		
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CS DIPPED SO mm in Support increments of 5 mm	į	i miloni	MEIGHT O		
CS Continuous 40 to 300 mm in Support increments of 5 mm	1	1 6 350 mm	58 S		
Support increments of 5 mm		2	DIPPED		
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m lengths of 2 m	-			Support	
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# TABLE 2 METRIC - MINIMUM WIRE SIZES

		CARBON STEEL		STAIN- LESS STEEL		
SYMBOL	NOMINAL HEIGHT	TOP	LEGS	RUNNER	LEGS	USUAL GEOMETRY
SB	All	4 ga.	6 ga.	-	8 ga.	Legs spaced 125 mm on center. Vertical
	•	Corrugated	_		-	corrugations spaced 25 mm on center.
SBU	All	4 ga.	6 ga.	7 ga.	_	Same as SB.
		Corrugated				'
BB	Up to 40 mm incl.	7 ga.	7 ga.	-	9 ga.	Legs spaced 65 mm on center.
	Over 40 to 50 mm incl.	7 ga.	7 ga.	_	8 ga.	
	Over 50 to 90 mm incl.	4 ga.	4 ga.	_	7 ga.	
	Over 90 mm.	4 ga.	4 ga.		_	
BBU	Up to 50 mm incl.	7 ga.	7 ga.	7 ga.	-	Same as BB.
	Over 50 mm	4 ga.	4 ga.	4 ga.	<u> </u>	
BC	All		7 ga.	-	9 ga.	-
JC	All		6 ga.	<u> </u>	9 ga.	<u> </u>
HC	50 to 90 mm incl.	-	4 ga.	<del>-</del>	7 ga.	Legs at 20 deg, or less with vertical.
	Over 90 to 125 mm incl.	-	4 ga.	-	_	When height exceeds 300 mm, legs are
	Over 125 to 225 mm incl.	-	2 ga.	_	-	reinforced with welded corsswires or
	Over 225 to 375 mm incl.	_	0 ga.	-	-	encircling wires.
HCM	50 to 125 mm incl.	_	4 ga.	_	-	Same as HC. The longest leg will govern
	Over 125 to 225 mm incl.	_		_	-	the size of wire to be used.
	Over 225 to 375 mm incl.	_		_		
CHC	50 to 90 mm incl.	2 ga.	4 ga.	-	7 ga.	Legs at 20 deg. or less with vertical. All legs
	Over 90 to 125 mm incl.	2 ga.	4 ga.	_	-	210 mm on center maximum, with leg within
	Over 125 to 225 mm incl.	2 ga.	2 ga.	-	_	100 mm of end of chair, and spread between
	Over 225 to 375 mm incl.	2 ga.	0 ga.	-	-	legs not less than 50% of nominal height.
CHCU	50 to 125 mm incl.	2 ga.	4 ga.	4 ga.	-	Same as CHC.
	125 to 225 mm incl.	2 ga.	2 ga.	4 ga.	-	
	225 to 375 mm incl.	2 ga.	0 ga.	4 ga.	-	
CHCM	Up to 50 mm incl.	4 ga.	6 ga.	_	_	With 4 ga. top wire, maximum leg spacing
	Up to 50 mm incl.	2 ga.	4 ga.	-	_	is 125 mm on center. With 2 ga. top wire,
1011	Over 50 to 125 mm incl.	2 ga.	4 ga.			maximum spacing is 250 mm on center.
JCU	-25 to 90 mm incl.	#10 m bar	2 ga.	-	-	Legs spaced 350 mm on center. Maximum
	(Measured from form to top	1				height pf JCU at support legs should be
	of middle protion of saddle	ļ	İ			slab thickness minus 20 mm.
	bar) in 5 mm increments.		<u> </u>	4	ļ	1.150
CS	40 to 175 mm incl.	8 ga.	8 ga.	6 ga.	-	Legs spaced 150 mm on center, 100 mm on
	125 to 300 mm incl.	6 ga.	6 ga.	6 ga.	_	center at bend point. Middle runner used for
	190 to 300 mm incl.	4 ga.	4 ga.	4 ga.		heights over 175 mm.

<u>Gauge</u>	Decimal Equivalent (mm)
_	
0	7.78
1	7.19
2	6.67
3	6.19
4	5.72
5	5.26
6	4.88
7	4.49
8	4.11
9	3.77

# TABLE 1 ENGLISH - TYPICAL TYPE & SIZES OF WIRE BAR SUPPORTS

SYMBOL	BAR SUPPORT ILLUSTRATION	BAR SUPPORT ILLUSTRATION PLASTIC CAPPED OR DIPPED	TYPE OF SUPPORT	TYPICAL SIZES
SB	1	CAPPED	Slab Bolster	¾, 1, 1½, and 2 inch heights in 5 ft. and 10 ft. lengths
SBU			Slab Bolster Upper	Same as SB
88	222	CAPPED 2W 2W	Beam Bolster	1, 1½, 2, over 2" to 5" heights in increments of ¼" in lengths of 5 ft.
BBU*	24-24-24-24		Beam Bolster Upper	Same as BB
BC	M	DIPPED FOR	Individual Bar Chair	¾, 1, 1½, and 1¾" heights
JC		DIPPED DIPPED	Joist Chair	4, 5, and 6 inch widths and ¾, 1 and 1½ inch heights
нс		CAPPED G	Individual High Chair	2 to 15 inch heights in incre- ments of ¼ inch
нсм			High Chair for Metal Deck	2 to 15 inch heights in incre- ments of ¼ in.
СНС	M.M.	CAPPED	Continuous High Chair	Same as HC in 5 foot and 10 foot lengths
снси			Continuous High Chair Upper	Same as CHC
снсм*	NN		Continuous High Chair for Metal Deck	Up to 5 inch heights in incre- ments of ¼ in.
1CN	TOP OF SI AS	TOPPED TIATION TO THE TOP TO THE TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP	Joist Chair Upper	14" Span Heights - 1" thru +3½" vary in ¼" incre- ments
cs			Continuous Support	1½" to 12" in increments of ¼" in lengths of 6'-8"

# **TABLE 2 ENGLISH - MINIMUM WIRE SIZES**

		CARBON STEEL		STAIN- LESS STEEL		
SYMBOL	NOMINAL HEIGHT	TOP	LEGS	RUNNER	LEGS	USUAL GEOMETRY
SB	All	4 ga. Corrugated	6 ga.	_	8 ga.	Legs spaced 5 in. on center. Vertical corrugations spaced 1 in. on center.
SBU	All	4 ga. Corrugated	6 ga.	7 ga.	_	Same as SB
BB	Up to 1½" incl. Over 1½" to 2" incl. Over 2" to 3½" incl. Over 3½"	7 ga. 7 ga. 4 ga. 4 ga.	7 ga. 7 ga. 4 ga. 4 ga.		9 ga. 8 ga. 7 ga.	Legs spaced 2½ in. on center.
BBU	Up to 2" incl. Over 2"	7 ga. 4 ga.	7 ga. 4 ga.	7 ga. 4 ga.	=	Same as BB.
BC	Ali		7 ga.	_	9 ga.	
JC	All		6 ga.		9 ga.	_
HÇ	2" to 3½" incl. Over 3½" to 5" incl. Over 5" to 9" incl. Over 9" to 15" incl.		4 ga. 4 ga. 2 ga. 0 ga.		7 ga. — —	Legs at 20 deg. cr less with vertical. When height exceeds 12 in., legs are reinforced with welded crosswires or encircling wires.
нсм	2" to 5" incl. Over 5" to 9" incl. Over 9" to 15" incl.		4 ga.	=	1.1	Same as HC. The longest leg will govern the size of wire to be used.
CHC	2" to 3½" incl. Over 3½" to 5" incl. Over 5" to 9" incl. Over 9" to 15" incl.	2 ga. 2 ga. 2 ga. 2 ga.	4 ga. 4 ga. 2 ga. 0 ga.	1111	7 ga. — — —	Legs at 20 deg, or less with vertical. All legs 8 1/4 in. on center maximum, with leg within 4 in. of end of chair, and spread between legs not less than 50% of nominal height.
CHCU	2" to 5" incl. Over 5" to 9" incl. Over 9" to 15" incl.	2 ga. 2 ga. 2 ga.	4 ga. 2 ga. 0 ga.	4 ga. 4 ga. 4 ga.	111	Same as CHC.
СНСМ	Up to 2" incl. Up to 2" incl. Over 2" to 5" incl.	4 ga. 2 ga. 2 ga.	6 ga. 4 ga. 4 ga.		=	With 4 ga. top wire, maximum leg spacing is 5 in. on center. With 2 ga. top wire, maximum spacing is 10 in. on center.
JCU	-1" to +3½" incl. (Measured from form to top of middle portion of saddle bar) in ¼" increments.	#4 bar or ½" ø	2 ga.	_		Legs spaced 14 in. on center. Maximum height of JCU at support legs should be slab thickness minus ¾ in.
cs	1½" to 7" incl. 5" to 12" incl. 7½" to 12" incl.	8 ga. 6 ga. 4 ga.	8 ga. 6 ga. 4 ga.	8 ga. 6 ga. 4 ga.	=	Legs spaced 6 in. on center, 4 in. on center at bend point. Middle runner used for heights over 7 in.

<u>Gauge</u>	Decimal Equivalent (Inches)
0	.3065
1	.2830
2	.2625
3	.2437
4	.2253
5	.2070
6	.1920
7	.1770
8	.1620
9	.1483