

APPENDIX 'E'

CONCRETE REINFORCING STEEL INSTITUTE **CRSI**
 933 N. Plum Grove Road, Schaumburg, IL 60173
 Phone: (847) 517-1200

STANDARD METRIC HOOK DETAILS

(SUPERSEDES CARDS ISSUED BEFORE OCTOBER 1992)

All Grades
 D = Finished inside bend diameter
 d_b = Bar diameter

Min. D = 8 d_b for #10 through #25
 Min. D = 8 d_b for #29, #32 and #36
 Min. D = 10 d_b for #43 and #57

RECOMMENDED END HOOKS, ALL GRADES

BAR SIZE	D	180° HOOKS		90° HOOKS	
		A or G	J	A or G	
#10	60	125	80	150	
#13	80	150	105	200	
#16	95	175	130	250	
#19	115	200	155	300	
#22	135	250	180	375	
#25	155	275	205	425	
#29	240	375	300	475	
#32	275	425	335	550	
#36	305	475	375	600	
#43	465	675	550	775	
#57	610	925	725	1050	

NOTE: All dimensions are in millimeters (mm)

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Grade Line (One line only)
GRADE 420

Bar marked with an S and M
 need both A, B15M and A 700M

Grade Line (Two lines only)
GRADE 520

For #10, 13, 16 - 8 d_b
 For #19, 22, 25 - 12 d_b

D = Bend diameter

STIRRUP HOOKS
 (Tie Bends Similar)

SEISMIC STIRRUP / TIE

BAR SIZE	D	90°			135°			BAR SIZE	D	135° SEISMIC HOOK		
		A or G	A or G	H	A or G	A or G	H					
#10	40	105	105	65	#10	40	110	80				
#13	50	115	115	80	#13	50	115	80				
#16	65	155	140	95	#16	65	140	95				
#19	115	305	205	115	#19	115	205	115				
#22	135	355	230	135	#22	135	230	135				
#25	155	410	270	155	#25	155	270	155				

*H dimension is approximate
 NOTE: All dimensions are in millimeters (mm)