

# MAGNUM<sup>®</sup> Bearing Plate Cap Application Guide for Grade Beam Punching Shear Reinforced Concrete



Minimum Concrete Cover to Obtain Rated Capacities for MAGNUM <sup>®</sup> Bearing Plate Caps <sup>2</sup>				
Bearing Plate Cap	2500 psi Concrete		4000 psi Concrete	
	$d_c$ (in)	$d_t$ (in)	$d_c$ (in)	$d_t$ (in)
MHC1000-3B	9	7	8	6
MHC1000-3BR2	9	9	8	8
MSC1300-150M55B	7	7	6	6
MSC1300-175O6565B	9	7	8	6
MHC1300-2K55B	6	6	5	5
MHC1300-3K55B	7	5	6	4
MHC1300-3M66BR1	9	7	8	6
MHC1300-3M6565BR2	9	9	7	7
MHC1300-35L66BR	6	5	5	5
MHC1300-4N88B1	12	8	10	7
MHC1300-4N88B2	12	12	10	10
MHC1300-5O99B1	18	11	14	9
MHC1300-5O99B3	18	18	14	14
MHC1300-5R1111B1	30	11	23	9
MHC1300-5R1111B3	30	17	23	14
MHC1300-6M8585B1	13	9	10	7
MHC1300-6M8585B3	13	13	10	10
MHC1300-6O1010B1	15	8	12	7
MHC1300-6O1010B3	15	14	12	11
MHC1300-6O1111B1	15	9	12	8
MHC1300-6O1111B3	15	15	12	12
MHC1300-8N1212B1	17	7	13	6
MHC1300-9O1313B1	29	9	23	8
MHC1300-9O1313B3	29	25	23	20
MHC1300-13O1616B1	20	8	16	6
MHC1300-13O1616B3	20	18	16	14

Notes:  
<sup>1</sup> Code minimum per IBC chapter 18.  
<sup>2</sup> Design all concrete pile caps and reinforcing in accordance to the CRSI Design Handbook, 2008. Per CRSI, minimum edge distance ( $d_e$ ) is 15 inches up to 60 ton piles and 21 inches up to 120 ton piles. Punching shear area is based upon dimensions ( $d_c$  and  $d_t$ ) on all four sides of pile caps. Per IBC Chapter 18 pile cap shall extend at least 4 inches beyond edges of plate cap.

