



CWS INDUSTRIES (MFG) CORP.

# Cable Handling Guide

## Common Guidelines for Cable Use and Handling in Mines



**Type SHD-GC  
Minimum Recommended  
Bending Diameters**

Cable Size	2 KV	5 KV	8 KV	15 KV	25 KV
6	16"	19"	-	-	-
4	17"	20"	31"	-	-
2	19"	22"	34"	39"	-
1	21"	23"	35"	40"	47"
1/0	22"	25"	37"	42"	49"
2/0	24"	26"	39"	44"	51"
3/0	26"	28"	42"	46"	53"
4/0	28"	30"	44"	49"	56"
250	30"	32"	46"	51"	58"
300	32"	34"	49"	-	-
350	34"	35"	51"	56"	62"
500	38"	40"	57"	61"	-

**Mine Power Feeder  
Minimum Recommended  
Bending Diameters**

Cable Size	5 KV 100 & 133%	8 KV 100% Level	15 K 100% Level
6	29	32	-
4	32	34	-
2	35	37	45
1	37	40	48
1/0	39	42	49
2/0	42	45	52
4/0	48	51	58
250	51	54	60
350	56	59	66
500	63	66	74

**600/2000 Volt Non-Shielded  
Minimum REcommended  
Bending Diameters**

Cable Size	Twin W&G	Flat 3/C G- GC 4/C W	Round 4/C W	Round 3/C G- GC
8	-	-	12"	12"
6	7"	8"	13"	13"
4	7"	9"	15"	14"
2	9"	10"	18"	16"
1	10"	12"	20"	18"
1/0	11"	12"	21"	20"
2/0	12"	13"	23"	21"
4/0	-	-	27"	25"

• Flat cables 12 times the

- Single and multiple conductor cables rated over 5,000 volts 16 times the cable diameter.
- Single and multiple conductor cables rated 5,000 volts and less 12 times the cable diameter.

- Type MP-GC cables with copper tape shielding, 5,000 volts through 15,000 volts, have a minimum recommended bending diameter 24 times the overall diameter of the cable.

minor dimension.

**Maximum Working Tensions for Straight Pulls**

Cable Size	2/C	3/C	4/C
8	99	149	198
6	158	236	315
4	250	376	501
2	398	597	796
1	502	753	1004
1/0	633	950	1250
2/0	799	1198	1250
3/0	1007	1250	1250
4/0	1250	1250	1250
250	1250	1250	-
300	1250	1250	-
350	1250	1250	-
500	1250	1250	-

- The maximum recommended pulling tension for portable mining cables expressed in pounds.



Cable Specifications reproduced from the "Pocket Guide for Cable Use and Handling in Mines" published by:  
**AmerCable**  
 350 Bailey Road  
 El Dorado, Arkansas, USA  
 (870) 862-4919  
 (800) 643-1516  
 Fax: (870) 862-9613

**Reduction Factors for Horizontal Bends on Dry Mine Surfaces**

Multiply Max Working Tension by:

Bend Diameter	1 - 45°	2 - 45°	1 - 90°	2 - 90°
12" - 48"	0.647	0.454	0.452	0.204
48.1" - 80"	0.673	0.454	0.451	0.204