

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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BLOCK AND HOUSE CABLE

SUPPORTING RISER CABLE IN CONDUIT

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1. GENERAL

1.01 This section replaces Issue 1 and covers methods and materials to be used in placing riser cables in conduits. It is being reissued to include detailed information on riser grips.

2. TESTING CONDUIT IN ADVANCE OF PLACING CABLE

2.01 Thread the conduit with a suitable fish wire. Make certain that the conduit is clear of obstructions that would interfere with the pulling of the cable. If difficulty is experienced in getting the fish line through, pull the line through several times until it is certain that the conduit is clear. If necessary a test mandrel consisting of about two feet of cable of the same size or slightly larger than the cable to be placed, should be pulled through the conduit.

3. PLACING RISER CABLE

3.01 If the conduit is clean with no sharp bends in the run and it is anticipated that the pull will be light, the cable may be placed by means of the fish wire attached directly to the cable grip on the end of the cable, as outlined in the section covering Riser Cables. If the pull, however, is expected to be heavy because of sharp bends in the conduit run or other conditions, a pulling line shall be placed in the conduit by means of the fish line and a core hitch made on the end of the cable.

The proper cable lubricant shall be used on the cable to ease the pulling operation.

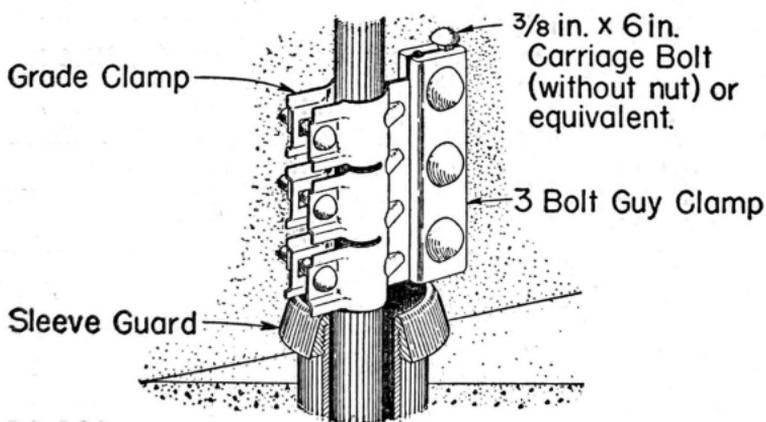
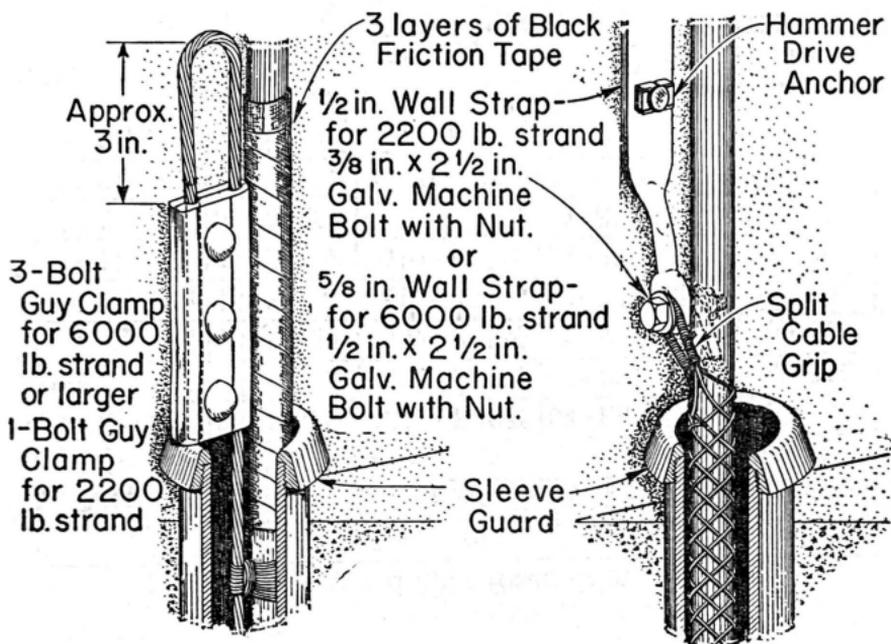
4. SUPPORTING CABLE IN CONDUIT

4.01 Cable in a vertical conduit should be properly supported as shown in the following illustrations. This is particularly important where there are no bends in the conduit run, so as to prevent excessive strains on joints at splices that may be located above the conduit. It is important that the weight imposed on a cable grip or clamp not exceed the following.

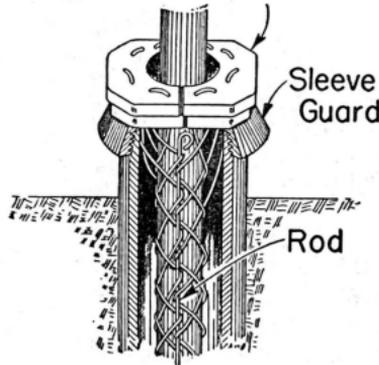
<u>Weight of Cable per Foot</u>	<u>Max. Load per Support</u>
1.0 lb. and less	35 lbs.
1.1 lbs. to 1.5 lbs.	43 "
1.6 " " 2.0 "	70 "
2.1 " " 2.5 "	88 "
2.6 " " 3.0 "	105 "
3.1 " " 3.5 "	123 "
3.6 " " 4.0 "	140 "
4.1 " " 4.5 "	158 "
4.6 " " 5.0 "	175 "
5.1 " " 5.5 "	193 "
5.6 " " 6.0 "	210 "
6.1 " " 6.5 "	228 "
6.6 " " 7.0 "	245 "
7.1 " " 7.5 "	263 "
7.6 " " 8.0 "	280 "

5. ILLUSTRATIONS OF TYPICAL SUPPORTS

5.01 The following illustrations show typical methods of supporting cable in conduit.



Ring and Split Riser Grip
(See Table)



Ring and Split Riser Grips

Cable Diameter inches	Conduit Sizes			Length inches	Breaking Strength pounds
	3 inches	3 1/2 inches	4 inches		
	Kellm's Catalogue No.				
3/4 - 1	C3-RR075	C3 1/2-RR075	C4-RR075	10	1000
Over 1 - 1 1/4	C3-RR100	C3 1/2-RR100	C4-RR100	12	1500
" 1 1/4 - 1 1/2	C3-RR125	C3 1/2-RR125	C4-RR125	13	1500
" 1 1/2 - 1 3/4	C3-RR150	C3 1/2-RR150	C4-RR150	14	1500
" 1 3/4 - 2	C3-RR175	C3 1/2-RR175	C4-RR175	15	1800
" 2 - 2 1/2	C3-RR200	C3 1/2-RR200	C4-RR200	17	2500
" 2 1/2 - 3		C3 1/2-RR250	C4-RR250	18	2500