BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G73.151.2
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AT&T Co Standard

PRESSURE TESTING
ASPHALT-FILLED HORIZONTAL PLUGS CABLES ENTERING SLEEVE FROM SAME END

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1. GENERAL

1.01 This section describes the method of constructing horizontal asphalt-filled pressure testing plugs in lead sheath paper-insulated cables when the cables enter the sleeve from the same end. This section replaces the related information in Section G50.670.2, Issue 1, which is cancelled.

1.02 Pressure testing plugs are installed to subdivide a cable into gas sections. The plugs are constructed at an opening in the cable made expressly for that purpose. The plug described in this section is used in plugging branch cables in manholes when the arrangement of the cables requires the use of a horizontal type plug with the cables entering one end of the sleeve.

1.03 The plug described herein is not applicable to use on polyethylene sheath cables nor on cables containing coaxials, video pairs, or disc-insulated spiral-four quads.

2. PREPARATION OF MATERIALS

2.01 **The Precautions** pertaining to the heating of asphalt and wax discussed in Section G73.150.1 should be observed in carrying on the operations outlined herein.

2.02 **The Cotton Sleeving, Houseline and Muslin** called for in these practices should be prepared **as outlined** in Section G73.150.1.

3. PREPARATION OF CABLE

3.01 Remove a section of sheath from the cable at the point where the plug is to be made, as specified in Table I.

TABLE I

Diameter of Cable	Length of Sheath to be Removed
1/2 in. to 3/4 in.	16 inches
over 3/4 in. to 1-1/2 in.	17 inches
over 1-1/2 in. to 2-1/2 in.	18 inches
over 2-1/2 in.	19 inches

3.02 The ends of the lead sheath should be flared and then protected with cotton tape. The core wrapping paper should be removed and the conductors ballooned.

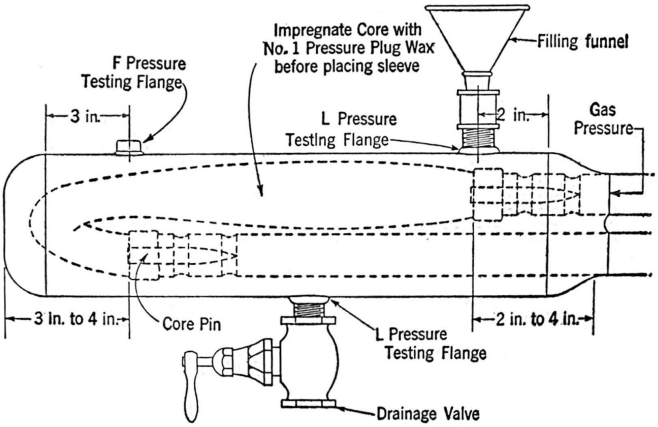
3.03 **Core Pins** of the sizes indicated in Table II are required. They should be prepared and inserted as outlined in Section G73.150.1.

TABLE II

Diameter of Cable	Diameter of Pin	Length of Pin
1/2 in. to 3/4 in.	1/8 in.	4 in.
over 3/4 in. to 1 in.	3/16 in.	4 in.
over 1 in. to 1-1/4 in.	1/4 in.	4 in.
over 1-1/4 in. to 1-1/2 in.	5/16 in.	6 in.
over 1-1/2 in. to 2 in.	3/8 in.	6 in.
over 2 in. to 2-1/2 in.	1/2 in.	6 in.
over 2-1/2 in. to 3 in.	5/8 in.	6 in.
over 3 in.	3/4 in.	6 in.

3.04 Rings should be formed in the sheath as shown in Section G73.151.1, Part 7. The exposed core should be loosely wrapped with cotton sleeving, the turns being about 1/2-inch apart. The cable should then be boiled with No. 1 Pressure Testing Wax heated to 350° F.

3.05 The cable should be so arranged that the cable under gas pressure is on top, as shown below.



4. PREPARATION OF SLEEVE

4.01 **Preparation of Sleeve:** A lead sleeve of the length and diameter indicated in Table III should be prepared and equipped with pressure testing flanges as shown in the above sketch.

TABLE III

Diameter of Cable	Size of Sleeve Diameter	Size of Sleeve Length
1/2 in. to 3/4 in.	2-1/2 in.	15 in.
over 3/4 in. to 1 in.	3 in.	17 in.
over 1 in. to 1-1/4 in.	3-1/2 in.	17 in.
over 1-1/4 in. to 1-1/2 in.	4 in.	17 in.
over 1-1/2 in. to 1-3/4 in.	4-1/2 in.	18 in.
over 1-3/4 in. to 2 in.	*5 in.	18 in.
over 2 in. to 2-1/2 in.	*5-1/2 in.	20 in.
over 2-1/2 in. to 3 in.	*6-1/2 in.	22 in.
over 3 in.	*7 in.	22 in.

* Use Extra Strength Lead Sleeve.

4.02 The prepared sleeve should then be placed, the ends beaten in and the joints wiped. The cable sheath at the high pressure end should project from 2 to 4 inches into the sleeve as shown in the figure in Paragraph 3.05 (2 in. for small diameter to 4 in. for large diameter cable).

5. IMPREGNATING CORE

5.01 A drainage valve should be attached to the bottom flange and the sleeve filled with No. 1 Pressure Plug Wax heated to a temperature of 350° F., as described in Section G73.151.1, Paragraphs 10.01 to 10.04, inclusive.

6. FILLING SLEEVE WITH ASPHALT

6.01 After the sleeve has been drained, the bottom flange should be sealed with an L flange plug coated with pipe joint compound. The sleeve should then be filled with No. 1 Pressure Plug Asphalt heated to a temperature of 200° to 220° F., as described in Part 11 of Section G73.151.1. **Do not** add asphalt after the original filling.

6.02 The top flanges should then be closed with flange plugs coated with pipe joint compound or equivalent.