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UNITED STATES GOVERNMENT MASTER SPECIFICATION FOR
THE INSTALLATION OF METAL FLASHINGS WITH BUILT-UP
BITUMINOUS ROOFING

FEDERAL SPECIFICATIONS BOARD, SPECIFICATION No. 156

This specification was officially adopted by the Federal Specifications Board on June 1, 1924, for the use of the Departments and Independent Establishments of the Government in the installation of metal flashings with built-up bituminous roofing.

CONTENTS

	Page
I. Type.....	1
II. Material and workmanship.....	1
III. General requirements.....	2
IV. Detail requirements.....	2
V. Inspection.....	3
VI. Packing and marking.....	3
VII. Additional information.....	3
VIII. General specifications.....	3

I. TYPE

This specification covers the installation of all metal flashings and other metal fittings in connection with built-up bituminous roofing in the angles formed where the roof surface abuts walls, curbs, ventilators, pipe, and other vertical surfaces, and where required to make the roof covering water-tight. They shall be installed by the roofing contractor or at least he shall be responsible for their proper installation.

II. MATERIAL AND WORKMANSHIP

The metal flashing sheets shall be 8 to 10 feet long, and the flashing sheets and hooks shall be of the weights, kinds, and shape specified for the particular job.

III. GENERAL REQUIREMENTS

Unless otherwise specified before installation, both sides of flashings and counterflashings shall be given two coats of red lead and linseed oil paint weighing not less than 25 pounds per gallon, Federal Specifications Board Specification No. 11.

The flashings shall be installed before the gravel, slag, tile, or other surfacing material or the top coating of asphalt or coal-tar pitch is applied to the roofing.

Parapet walls of concrete shall be constructed in such a manner as to provide for a flashing groove or reglet one-half inch wide and not less than $1\frac{1}{2}$ inches deep. The groove shall be at right angles to the wall except where a 45° cant is used, when it should be set or cut in the wall at that angle.

Brick parapet walls shall be provided with a groove one-fourth inch to three-eighths inch wide and not less than $1\frac{1}{2}$ inches deep either by the installation of a wooden strip between the courses of brick at the proper height which can be removed afterwards, or by raking out the mortar.

The line on which the cap or counterflashings are installed shall be not more than 10 inches nor less than 6 inches above the roof level. Step flashings shall be used where vertical surfaces abut sloped roof surfaces.

IV. DETAIL REQUIREMENTS

1. Three layers of asphalt-saturated felt in the case of asphalt roofing or of coal-tar saturated rag felt in the case of coal-tar pitch roofing shall be set in the angle. They shall be cemented together and to the underlying surfaces and the top layer coated. The asphalt used in the roofing or asphalt plastic roofing cement shall be used with asphalt-saturated felt. The coal-tar pitch used in the roofing or coal-tar plastic roofing cement shall be used with coal-tar saturated rag felt. These layers of felt shall extend at least 6 inches up abutting vertical surfaces. They shall extend out over the roofing and lap as follows: The first layer of felt shall extend out over the roofing at least 6 inches, the second layer shall lap the first approximately 5 inches, and the third layer shall lap the second approximately 4 inches.

2. A strip of the metal of the required width shall be rounded, not sharply bent, into the proper shape and set in the angle against these layers of felt which have been mopped or coated as above. This metal strip shall extend out at least 6 inches over the roofing and up to within 1 inch of the flashing groove.

3. The strip of metal shall be lapped 3 inches at the ends over adjoining sheets and in the case of board sheathing shall be nailed to the roof boards through the roofing with nails spaced approximately 6 inches apart and on a line about 1 inch from the edge of the sheet. Nailing shall also be done in the same manner as in the case of gypsum.

The upper edge of the flashing shall be secured when possible with flashing hooks spaced about 12 inches apart.

4. Over the portion of the metal flashing strip lying on the roofing lay two plies of asphalt or coal-tar saturated rag felt at least 15 inches wide, cementing them to the flashing strip and roofing and to each other with either hot asphalt or coal-tar pitch, depending upon the kind of felt used. The first layer shall extend out over the roofing at least 2 inches beyond the second layer.

5. The top coating of hot asphalt or coal-tar pitch, as the case may be, shall then be applied and the slag or gravel embedded.

6. The cap or counterflashing shall then be installed. It shall be bent so as to fit into the reglet or flashing groove to a depth of 1½ inches and shall extend down over the base flashing at least 3 inches. The counterflashing shall be in lengths not exceeding 10 feet and shall lap at the ends at least 3 inches. Counterflashing shall be held in place by lead wedges spaced 18 inches apart.

7. After placing the counterflashing the grooves or reglets shall be filled with plastic roof cement. The ends shall also be cemented and coated with plastic roof cement.

8. Roof leaders, vent connections, outlet boxes, ventilators, or other fittings extending through the roofing, also gravel guards, shall be installed before the top coating of asphalt or coal-tar pitch or the slag, gravel, or other surfacing material is applied. These fittings shall be provided with the proper metal flanges for making a water-tight connection with the roofing.

The flanges shall be set on top of the last layer of felt after a heavy mopping of asphalt or coal-tar pitch has been applied, depending upon the character of the bituminous material of which the roofing is composed. When possible they shall be nailed so as to be firmly held in place. They shall be covered with two layers of saturated felt not less than twice the width of the flange. These felts shall be cemented together and to the flange with hot asphalt or coal-tar pitch.

V. INSPECTION

No details.

VI. PACKING AND MARKING

No details.

VII. ADDITIONAL INFORMATION

No details.

VIII. GENERAL SPECIFICATIONS

No details.

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