

FORM 430



GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Transportation and Works
Highway Design Division

SCREEN END TREATMENT FOR CORRUGATED STEEL PIPE

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430.01 SCOPE

This specification covers the requirements for the supply and installation of a screen to the end of a corrugated steel pipe culvert or to the inlet of a corrugated steel pipe storm sewer.

430.02 MATERIALS

Screens shall consist of 3.8 mm steel mesh welded to a standard pipe coupling of such size as to fit the size of pipe for which the screen is required. A drawing of a typical screen is shown in Section 1225, "End Treatment Screens for Corrugated Steel Pipe".

Coupler, nuts and bolts shall be of galvanized steel.

After fabrication, the screen shall be rust proofed with cold galvanizing compound.

When corrugated steel pipe is cut, drilled, or welded the pipe shall be thoroughly cleaned with a wire brush to remove scale, rust, slag residue, weld splatter, etc., and wiped clean. The cleaned surface shall receive at least one application of metal conditioner to de-oxidize, de-grease, and phosphatize the metal surface to be treated if the surface is oily. Premixed, ready-to-apply, liquid-zinc compound should be applied to the prepared clean dry metal surface. The cold-galvanizing compound must be of a type that imparts cathodic action against corrosion. The cold-galvanizing compound should have a minimum 50 mm overlap of the surrounding undamaged galvanized metal.

Both metal conditioner and cold-galvanizing compound must be approved by Underwriters Laboratories Inc. for component coatings (organic) and meet or exceed Canadian Government Specifications 1-GP-181A. All materials must be applied in accordance with the manufacturer's instructions.

Should asphalt treatment be specified, then the fabricated screen shall be asphalt treated.

Materials including steel mesh, pipe coupling, cold galvanizing compound, nuts, and bolts together with asphalt, if required, shall be supplied by the Contractor.

430.03 FABRICATION AND INSTALLATION

The screen shall be fabricated to such size that it will fit over, and be capable of being secured to, the CSP for which it is required. The screen shall be constructed as shown in the drawings and then rust proofed as outlined above.

After the rust proof treatment is thoroughly dry, the screen shall be treated with asphalt if asphalt treatment is specified.

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After all treatments are thoroughly dry, the screen shall be securely bolted to the end of the corrugated steel pipe.

430.04 MEASUREMENT FOR PAYMENT

Measurement for payment for screen and treatment for corrugated steel pipe shall be by the number of screen end treatments of a particular size and type made.

Screen end treatment sizes are specified in the unit price table in terms of the size of the pipes to which they will be connected.

430.05 BASIS OF PAYMENT

Payment at the contract price for each screen end treatment of the type and size specified shall be compensation for all labour, materials, and equipment use to supply the steel mesh and pipe coupling, to fabricate and rust proof the screen as outlined above, to treat with asphalt if so specified, to supply nuts and bolts, and to secure the screen to the corrugated steel pipe, together with such unwatering provisions as may be necessary to carry out the work.