

FM-90

SPECIFICATIONS

BASE SHEET TO LIGHTWEIGHT INSULATING CONCRETE AND VARIOUS GYPSUM ROOFDECKS

COMPOSITION

Fastener: Precision formed from galvanized (G-90) coated steel. Exposed surfaces are further protected with a special elastomeric polymer coating to prevent corrosion. Rectangular dual gripping legs, 1.7" long.

Disk: Integrally locked to fastener. Precision formed from Galvalume (AZ-55) coated steel to prevent corrosion. Rib reinforced cap, 2.7" diameter.

TECHNICAL DATA

Approvals: FM-90 fasteners maintain Factory Mutual, Underwriters Lab, and Miami-Dade County Approvals.

Fastening Pattern: Consult Factory Mutual, Underwriters Lab, or Miami-Dade requirements for recommended patterns in normal, exposed, and hurricane areas.

Field Testing: On-site withdrawal testing should always be performed to evaluate the ability of the roofing substrate to satisfactorily accept and retain fasteners. Such testing may alter fastener selection and modify applicable fastening patterns.

INSTALLATION

Equipment: Always use the ES Magnetic Driver to assure proper fastener installation.

Method: Drive FM-90 as an ordinary nail. DO NOT TOE. Seat cap flush with roofing surface (see illustration).

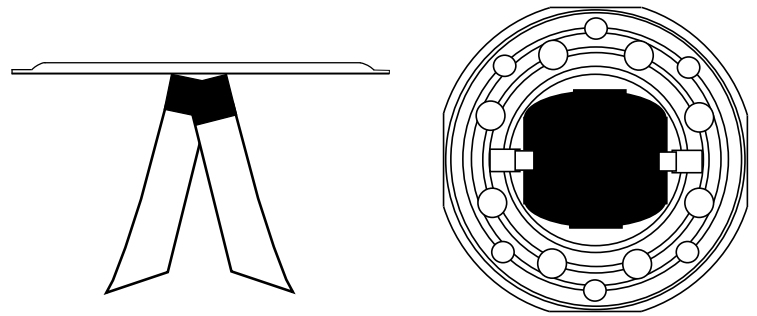
Operation: As FM-90 is driven, dual legs diverge and cut a plug of deck material which wedges and anchors the FM-90 in its own hole. No predrilling is required.

Availability: FM-90 is a proprietary product manufactured only by ES Products, Inc. distributed by leading roofing material and equipment wholesalers throughout the United States.

Packaging: 1,000 FM-90 fasteners per carton. Shrink wrapped and palletized. Gross weight: 39 lbs.

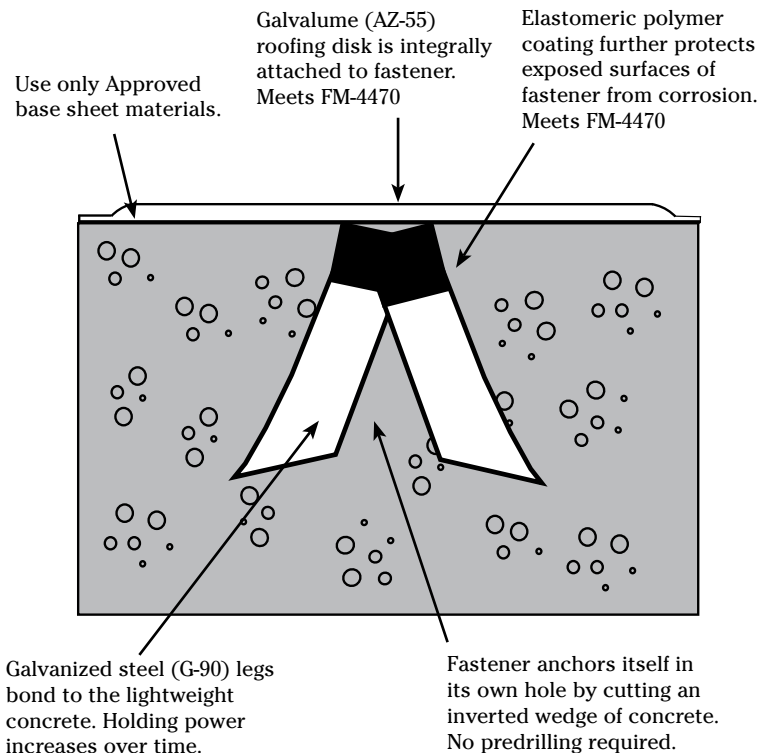
PROUDLY MADE IN THE U.S.A.

Warranty: ES Products, Inc. warrants its products for one year from date of sale against defective workmanship and material, and its liability therefore shall be limited to replacing defective products reported defective during the warranty period. ES Products is not responsible for any failure attributable to improper use or installation in any manner inconsistent with manufacturer's specifications. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, ALL OF WHICH ARE EXPRESSLY DISCLAIMED INCLUDING ANY WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR PARTICULAR USE. This warranty provides specific legal rights and remedies which may vary from state to state.



Length: 1.7 inches

Diameter: 2.7 inches



ES PRODUCTS



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BASE SHEET ATTACHMENT TO LIGHTWEIGHT INSULATING CONCRETE

USING THE FM-90

Fastener density and spacing vary depending on applicable uplift requirements. Local codes, governing approval bodies, membrane manufacturers, and individual roofdeck manufacturers all may have specific requirements that need to be addressed prior to beginning any roofing project. The following illustrates a typical Factory Mutual Approved fastening pattern widely accepted for use by membrane and roofdeck manufacturers.

FASTENING GUIDE

CLASS I-90 WINDSTORM CLASSIFICATION

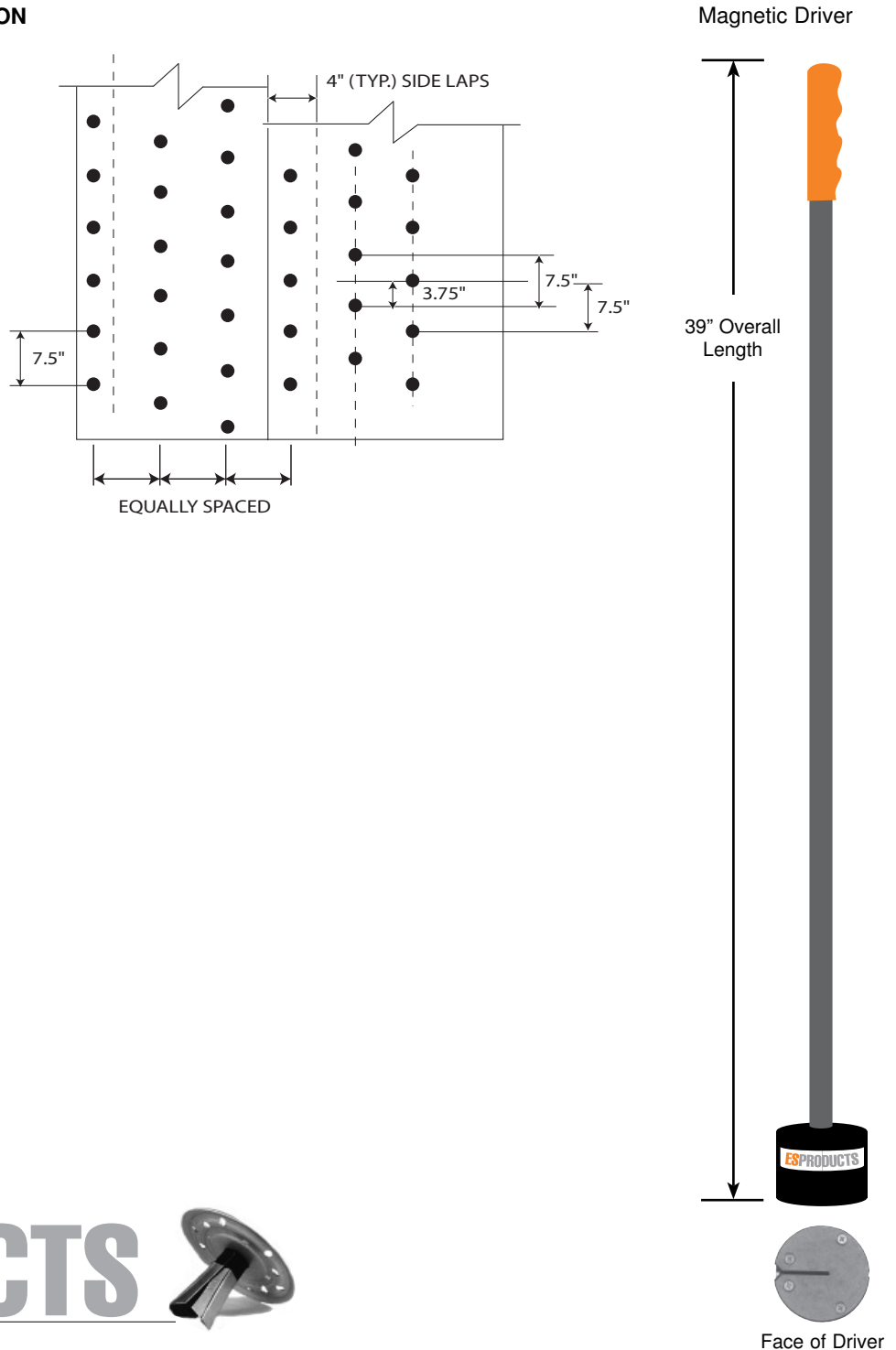
An FMRC Approved base sheet is secured to an FMRC Approved lightweight insulating concrete roofdeck as outlined in the current edition of the FMRC Approval Guide and/or RoofNav.

The base sheet is secured in the field of the roof with FM-90 fasteners installed 7.5" on center in 4" wide side laps and 7.5" on center, staggered in 2 rows, equally spaced, between the base sheet side laps.

When fastening meter-wide material with this pattern, expect to use approximately 165 fasteners per square (100 ft.²).

IMPORTANT:

Prior to roofing, on-site withdrawal testing should always be performed to evaluate the ability of the roofing substrate to satisfactorily accept and retain fasteners. Such testing may alter fastening selection and modify applicable fastening patterns.



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