KW
Karol•Warner

OPERATING MANUAL

Proportional Caliper
Model 9101

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INTRODUCTION

The Proportional Caliper device is used to determine flat particles, elongated particles, or flat and elongated particles in coarse aggregates. Please refer to ASTM D4791 for the full test procedure.

FEATURES

- Constructed of 7-gauge steel with a yellow zinc coating for durability
- Four position options for 1:2, 1:3, 1:4, and 1:5 ratios.
- Easily switch between ratios by moving the black knob to the desired position
- 6 x 16 inch base with four rubber feet for added stability.

DEFINITIONS

Flat Particles are those particles of aggregate having a ratio of width to thickness greater than a specified value.

Elongated Particles have a ratio of length to width greater than a specified value.

Flat and Elongated Particles are those particles having a ratio of length to thickness greater than a specified value.

PROCEDURE

Adjust the caliper to the required ratio setting by moving the black knob to the desired position.

- Flat Particles: set the larger opening equal to the maximum particle width. The particle is flat if the maximum thickness can be placed through the smaller opening.
- Elongated Particles: set the larger opening equal to the maximum particle length. The particle is elongated if the maximum width can be placed through the smaller opening.
- Flat and Elongated Particles: set the larger opening equal to the maximum particle length. The particle is considered flat and elongated if the maximum thickness can be placed through the smaller opening.

MAINTENANCE

Very little maintenance is required for the Proportional Caliper. Clean the caliber before each test to avoid foreign particles which may affect results. Every six months add a drop of oil into the ratio holes for smooth operation. Periodically inspect parts for wear to ensure compliance with ASTM D4791.

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PHONE: 800-999-SOIL (7645)
410-987-7330
PO Box 1213 Powell, OH 43065
E-mail: customerservice@karolwarner.com **Product Web Page:** www.karolwarner.com
FAX: 410-987-2124