Model 4112 –T
Extensometer

First Edition, AUGUST 2009

Comments or suggestions pertaining to the contents of this manual can be sent to:

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Model 4112 –T Extensometer

Instruction Manual

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Preface

After-sale Support

If you have any questions concerning the operation of your unit, contact ATS Service Department. Before calling, please obtain the serial number and prepare to give a complete problem description to the Service Representative.

Section 1. Safety

1.1 For Owners, Operators, and Maintainers

1.2 Cautions

The following statements are caution statements. These statements alert the operator to conditions that may damage equipment. Operators must be aware of these conditions in order to ensure safe operation of this equipment.

> **Do not exceed maximum operating temperature of test equipment. The Series 4112-T Extensometers are used for temperatures up to 1100º C (2012º F). Refer to the appropriate manuals for limitations of other systems components.**

Section 2. System Overview

2.1 General Description and Specifications

The ATS Series 4112 Extensometer (Figure 1) uses four- rod construction.

Construction Type:	Four (4) Rod
Material Type:	
Crossheads and Rods	Inconel 600/601
Inserts	MAR-M296
Maximum Temperature:	1100º C (2012º F)
Gauge Length:	13 mm – 100 mm
Crosshead Type:	Accommodates interchangeable inserts

Figure 1 ATS Series 4112 – T Extensometer

Section 3. Setup & Installation

3.1 Pre-Set Up Instructions

Before preparing the extensometer for use, prepare the test machine for testing. Refer to individual operations manual for instructions. If applicable, setup furnace before continuing.

3.2 Specimen Attachment

For testing without using an ATS calibrated fixture, the specimen and Extensometer are mounted to the test machine.

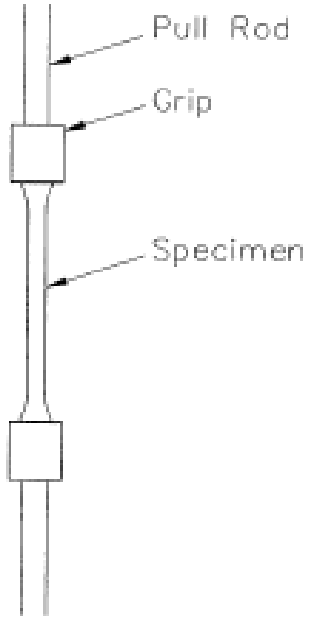

Figure 2, Specimen to Grips Attachment

1. Position the extensometer crosshead for the desired gauge length, and adjust the gauging platforms to suit clip on extensometer.

2. Install the extensometer crossheads onto the specimen. Crosshead inserts are available to attach directly to the gauge length or specimen shoulder.

3. Check the clearances of the gauging platforms and dust shields. Refer to figure 3. Allow gap between the dust shield and bearing at least equal to the expected maximum specimen elongation. If shields are directly against the bearing, they could cause binding when gauging platforms separate.

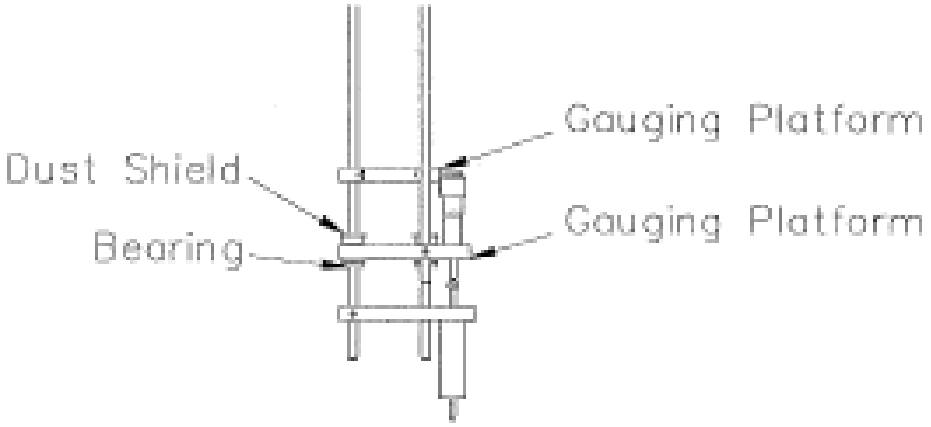

Figure 3, Check Gauging Platform Clearances

Section 4. Maintenance

4.1 Repairing Rods

If extensometer rods, tubes, and bearings do not move smoothly, clean the extensometer rods and bearings. Check the extensometer and rods for misalignment.

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