

# SCTE • ISBE<sup>®</sup>

## S T A N D A R D S

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**Interface Practices Subcommittee**

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**AMERICAN NATIONAL STANDARD**

**ANSI/SCTE 191 2018**

**Test Method for  
Axial Pull Force, Female “F” Port**

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## **1. Introduction**

### **1.1. Executive Summary**

Test Method to determine F Port strength when subjected to axial pull.

### **1.2. Scope**

This test procedure is used to evaluate the mechanical strength of female "F" ports when an axial pull force is applied.

### **1.3. Benefits**

Proper mechanical attachment of the F Port to equipment is important to the performance of the physical plant.

### **1.4. Intended Audience**

Technical Operations, Installation, Service and Maintenance technicians.

### **1.5. Areas for Further Investigation or to be Added in Future Versions**

Further investigation may be needed if end user determines failure of F Port when tested in accordance to this standard.

## **2. Normative References**

The following documents contain provisions, which, through reference in this text, constitute provisions of this document. At the time of Subcommittee approval, the editions indicated were valid. All documents are subject to revision; and while parties to any agreement based on this document are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents might not be compatible with the referenced version.

### **2.1. SCTE References**

- No normative references are applicable.

### **2.2. Standards from Other Organizations**

- No normative references are applicable.

### **2.3. Published Materials**

- No normative references are applicable.

## **3. Informative References**

The following documents might provide valuable information to the reader but are not required when complying with this document.

### 3.1. SCTE References

- ANSI/SCTE 01 2015 Specification for “F” Port, Female, Outdoor
- ANSI/SCTE 02 2015 Specification for “F” Port, Female, Indoor

### 3.2. Standards from Other Organizations

- No informative references are applicable.

### 3.3. Published Materials

- No informative references are applicable.

## 4. Compliance Notation

<i>shall</i>	This word or the adjective “ <i>required</i> ” means that the item is an absolute requirement of this document.
<i>shall not</i>	This phrase means that the item is an absolute prohibition of this document.
<i>forbidden</i>	This word means the value specified shall never be used.
<i>should</i>	This word or the adjective “ <i>recommended</i> ” means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighted before choosing a different course.
<i>should not</i>	This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
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## 5. Abbreviations and Definitions

### 5.1. Abbreviations

ISBE	International Society of Broadband Experts
SCTE	Society of Cable Telecommunications Engineers
ANSI	American National Standard Institute
CRS	Cold Rolled Steel

### 5.2. Definitions

None

## 6. Equipment

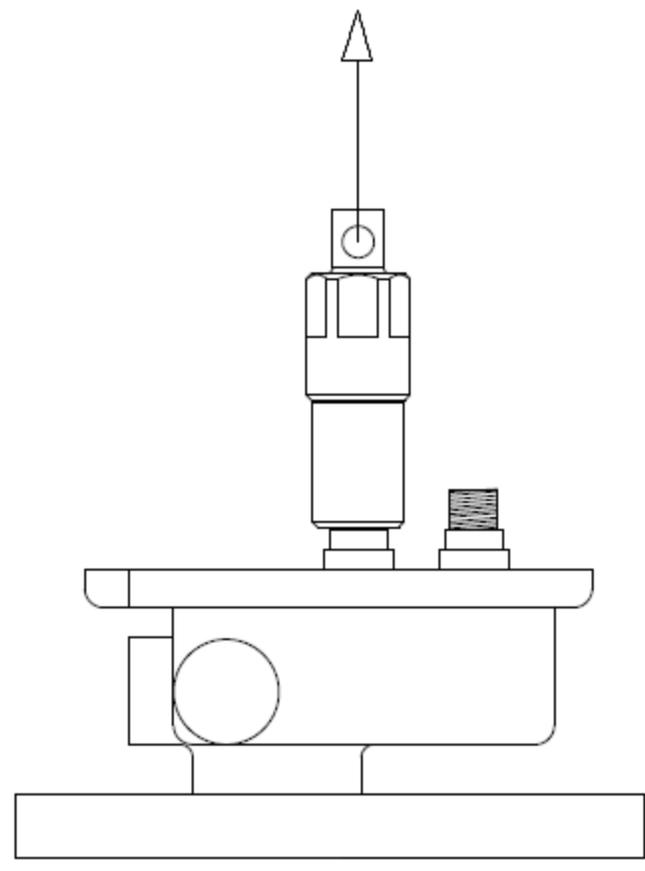
- 6.1. Tensile force testing machine (Instron Model 1122 or equivalent) with a recording device. It may be desirable to have an automatic cut off feature which can be activated by a maximum excursion limit setting and/or maximum force limit.
- 6.2. Mounting stand to secure the sample to the Instron base with the sample test port facing up, on axis with the pulling force. A possible configuration is shown in the accompanying drawing (Figure 1).
- 6.3. Axial pull test fixture (Figure 2) that threads over the port to be tested. Material should be cold rolled steel (CRS).
- 6.4. Mounting fixture to attach the test fixture to the Instron moving cross head. A pin through the test fixture 0.25 inch (6.4mm) hole is used to attach to the moving cross head.

## 7. Test Samples

- 7.1. A minimum of five samples of each device shall be used for testing.

## 8. Testing Method

- 8.1. Calibrate the tensile test fixture per the manufacturer's recommendations.
- 8.2. Secure the device with the female "F" port to be tested to the mounting base. The port under test must be aligned perpendicular to the crosshead within  $\pm 2^\circ$ .
- 8.3. Thread the axial pull force test fixture onto the female "F" port to be tested, tighten to 30 in-lbs (3.34 N-m), pin fixture to the moving cross head and zero out the force gauge.
- 8.4. The female "F" port under test shall be pulled (in the direction indicated by the arrow in Figure 1) to failure at a cross head speed of 2 inches (50 mm) per minute.
- 8.5. Record the maximum measured tensile force on the attached Report Form.



**Figure 1 - Possible Mounting Stand with Device and Test Fixture Attached**

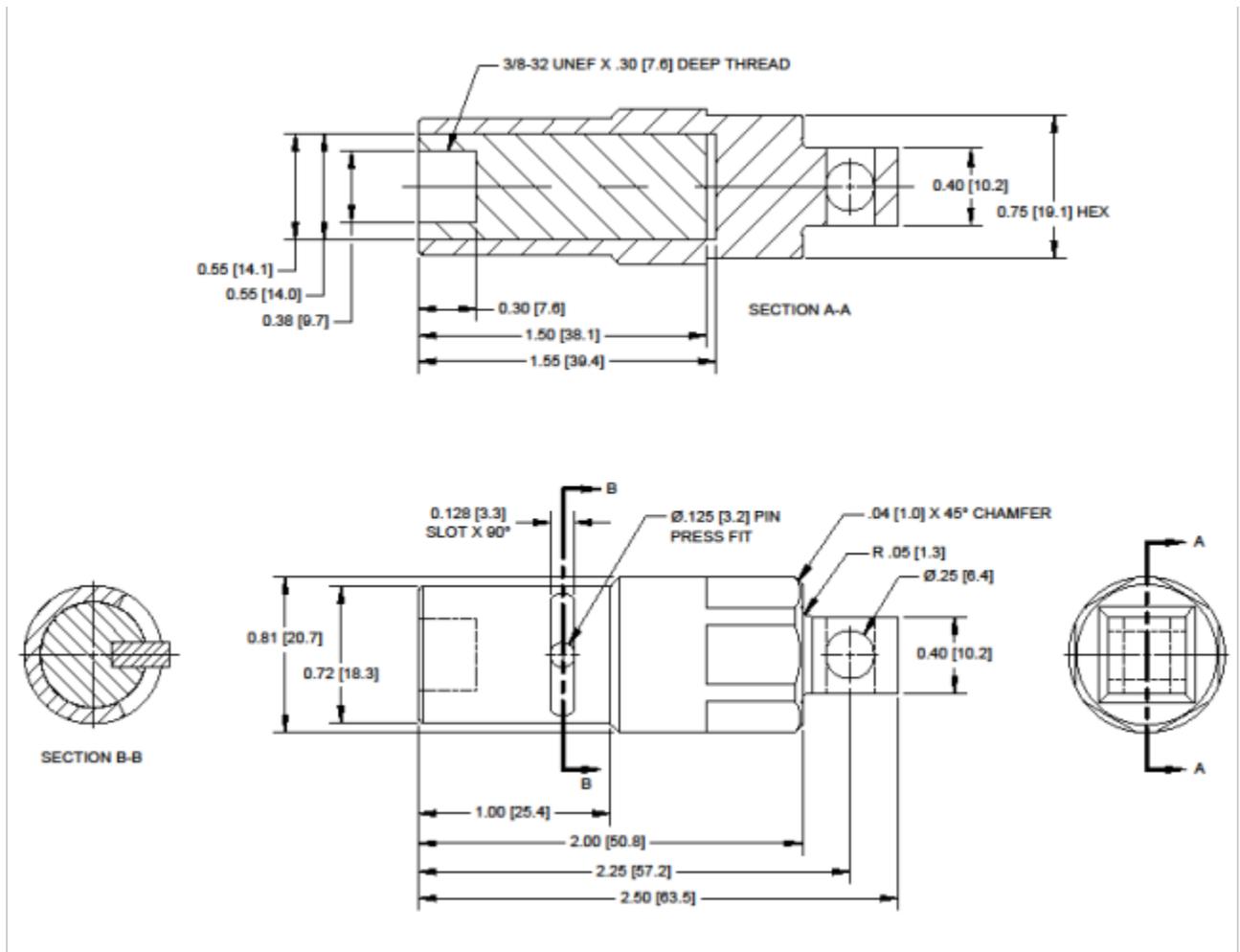


Figure 2 - Test Fixture Design

## APPENDIX A: Report Form

Device Type:		
Manufacturer:		
Test Sample Number	Force Measured on Tensile Tester	Comments
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		