

<b>TAM International, Inc.</b>	
<b>Carbon Steel Material for Load Bearing or Pressure Containing Parts, 50 ksi Yield</b>	Specification: <b>ESMA-1003</b> Revision Level: B
Reviewed By: Mark Wyatt	
Approved By: Thomas Young	

**1. Scope**

- 1.1. This document provides specifications for carbon steel material with 50 ksi minimum yield strength used for producing load bearing or pressure containing component parts in TAM products.
- 1.2. Material specified by this document must be in accordance with NACE MR-0175 (ISO 15156).

**2. Acceptable Materials / Chemistry**

- 2.1. Any carbon steels that fall within 0.12 – 2.00 % carbon content are acceptable as long as the material meets all other requirements of this specification.

**3. Mechanical Properties**

- 3.1. The mechanical properties of this material shall conform to the following requirements:
    - 3.1.1. 50,000 psi minimum yield strength as determined in accordance with ASTM A370.
    - 3.1.2. 22 RC maximum hardness as determined in accordance with ASTM E18.
- No other mechanical properties are required by this specification to be reported unless otherwise specified.

**4. Weldability**

Material meeting the requirements of this specification must be classified as P 1, Group 1, 2 by ASME BPVC-IX.

**5. Dimensional Tolerances**

- 5.1. Unless otherwise specified, dimensional tolerances shall comply with the following:
  - 5.1.1. Plates shall comply with the dimensional requirements of ASTM A568.
  - 5.1.2. Tubes shall comply with the dimensional requirements of ASTM A450.
  - 5.1.3. Bars shall comply with the dimensional requirements of ASTM A29.
  - 5.1.4. Shapes shall comply with the dimensional requirements of ASTM A6.

**6. Reports**

- 6.1. Material ordered to this specification shall be accompanied by a Material Test Report. Report shall contain the following minimum information which will be subject to inspection upon receipt:
  - 6.1.1. Statement of material type/grade
  - 6.1.2. Chemical analysis that shows the carbon content
  - 6.1.3. Material yield strength
  - 6.1.4. Material hardness
  - 6.1.5. Material Identification Number

**7. Material Acceptance**

- 7.1. All requirements of this specification are subject to verification at the discretion of TAM International.
- 7.2. TAM Engineering Manager or designee is ultimately responsible for accepting or rejecting material that does not conform to any portion of this specification.

# TAM International, Inc.

## Carbon Steel Material for Load Bearing or Pressure Containing Parts, 50 ksi Yield

Specification:  
**ESMA-1003**  
Revision Level: B

Reviewed By: Mark Wyatt

Approved By: Thomas Young

Rev	Date	Description	Prepared By:	Reviewed By / Approved By	Date
A	7/21/15	New Document	Mark Wyatt	M. Wyatt, G. Fletcher, T. Young	7/21/2015
B	9/25/2015	Material should be for 50 KSI instead of 55 KSI	Jeff Dinkel	J. Dinkel, M. Wyatt, G. Fletcher, T. Young	9/28/2015