

FED. SUPPLY CLASS

4730

1. SCOPE

1.1 Scope. This specification establishes the requirements for a light weight, tangential worm type, band clamp.

2. APPLICABLE DOCUMENTS

2.1 Specifications, Standards, Publications, and Drawings. The following documents of the issues in effect on the date of invitation for bid, form a part of this specification to the extent specified herein.

2.1.1 Government Documents

MIL-HDBK-831 - Preparation of Test Reports

2.1.2 Industry Standards

2.1.2.1 AIA/NAS Standards: Copies can be obtained from the Aerospace Industries Association, 1000 Wilson Blvd., Suite 1700, Arlington, VA 22209. [www.aia-aerospace.org](http://www.aia-aerospace.org)

NAS1922 - Clamp, Hose, Band. Tangential Worm, Light Weight

2.1.2.2 SAE International Publications: Copies can be obtained from SAE International, 400 Commonwealth Dr., Warrendale, PA 15096-0001. [www.sae.org](http://www.sae.org)

ARP9013 - Statistical Product Acceptance Requirements

AS1506 - Hose, Air Duct, Semiflexible, Sleeve Section, Unreinforced, Self Extinguishing

AS1543 - Hose, Air Duct, Semiflexible, Sleeve Section, Unreinforced, Self Extinguishing, Nomex

3. REQUIREMENTS

3.1 Qualification. The clamps furnished under this specification shall be products which have been tested and passed the qualification tests specified herein. (See para. 4.3)

3.2 Components. The clamp shall consist of a clamping band, a housing and an adjusting screw. All components shall be attached to the clamping band in such a manner to assure a satisfactory integral clamp assembly.

3.3 Material. The clamp shall be made of corrosion resistant steel conforming to the requirements as specified in the detail drawing.

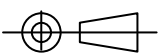
3.4 Configuration. Clamps shall have strap ends in accordance with NAS1922 so that clamps can assemble in tandem. Clamp housings and screws shall be compatible with the strap end so that any clamp with this strap end will mate with any other NAS1922 clamp.

3.5 Welding. When spot or projection welding is used in construction of the clamp assembly, only welding machines certified by a procedure acceptable to the procuring activity shall be employed. The welded products shall be subjected to the qualification test requirements specified herein.

3.6 Adjusting Screw. The clamp adjusting mechanism shall incorporate a worm type screw with a screw slot in either the plain head or hex head configuration as specified on NAS1922.

② COMPLETELY REVISED

THIRD  
ANGLE  
PROJECTION



CUSTODIAN  
NATIONAL AEROSPACE STANDARDS COMMITTEE

REVISION  
**2**

PROCUREMENT  
SPECIFICATION

TITLE

CLASSIFICATION  
SPECIFICATION

NONE

**CLAMP, HOSE, BAND, TANGENTIAL WORM,  
LIGHT WEIGHT**



**NAS1922**  
SHEET 1 OF 5

Document Sharing Hub

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.  
1000 WILSON BLVD.  
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME  
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST  
REVISION DATE.

FORM 09-01

REVISION DATE: NOVEMBER 22, 2011

ISSUE DATE: NOVEMBER 1979

- 3.6.1 Screw Thread. The adjusting screw used on the clamp shall have a buttress thread compatible with holes on the strap end such that the clamp shall meet the requirements of this specification.
- 3.7 Adjustment Range. The clamp shall have sufficient adjustment range (minimum and maximum) to tighten uniformly around the periphery of bars equal in diameter to the minimum and maximum sizes listed in NAS1922. The maximum gap between the clamp band and the bar at any point shall not exceed the thickness of the clamp band when the adjusting screw is tightened to a maximum of 18 inch pounds torque.
- 3.8 Torque
  - 3.8.1 Free Torque. The torque required to turn the adjusting screw, measured over the complete range of adjustment, while the clamp is in an uninstalled condition, shall not exceed 4 inch-pounds.
  - 3.8.2 Release Torque. The release torque shall not be less than 4 inch-pounds after the clamp has been installed on a hose and tube at 18 inch-pounds torque.
  - 3.8.3 Normal Torque. The normal rigging torque shall be 18 inch-pounds maximum.
  - 3.8.4 Ultimate Torque. The clamp, when installed over an AS1506, Grade A, B, C, or D or AS1543, Grade A or equivalent hose on tubing, shall take a torque in excess of the following torque values without failure (screw ceases to increase tension of band):
    - NAS1922-0050 thru -0525 = 35 inch-pounds
    - NAS1922-0575 and up = 27 inch-pounds
  - 3.8.5 Thread Durability. The clamp shall meet the requirements of 3.8.4 after 14 installations tightened to 18 inch-pounds.
- 3.9 Band and Latch Strength. The ultimate tensile strength shall be 400 pounds. The minimum yield strength shall be 300 pounds.
- 3.10 Latch. The latch assembly shall be installed on the band in a manner that prevents cutting of the hose.
  - 3.10.1 Quick Release Latch. The quick release device shall consist of one or two lugs on the band which engage with mating holes on an extension from the worm drive housing. Torque and band strength requirements must be maintained.
- 3.11 Operating Temperature. -65 °F to +500 °F.
- 3.12 Identification. The clamp shall be marked as shown on NAS1922.
- 3.13 Workmanship. The clamp shall be free from burrs, sharp edges, irregular surfaces on the clamp band, and all other defects which could be detrimental to, and cause failure of, the hose on which the clamp is used.
- 4. QUALITY ASSURANCE PROVISIONS
  - 4.1 Responsibility for Inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified the supplier may use his own facilities or any commercial laboratory acceptable to the procuring activity. The procuring activity reserves the right to perform any of the inspections set forth herein where such inspections are deemed necessary to assure that the clamp conforms to prescribed requirements.
    - 4.1.1 Components and Material Inspection. In accordance with 4.1 the supplier is responsible for ensuring that components and materials used are manufactured, tested and inspected in accordance with the requirements of referenced subsidiary specifications and standards to the extent specified herein, or if none, in accordance with this specification.

REVISION

2



**NAS1922**

SHEET 2

Document Sharing Hub