# MILITARY SPECIFICATION

# CHARGE, LINEAR SHAPED

This specification is approved for use by the Naval Air Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE.

1.1 Scope. This specification establishes the requirements for the manufacture and acceptance of a linear-shaped charge, critical item, referred to herein as the charge.

## 2. APPLICABLE DOCUMENTS.

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

MILITARY

| | |
|---|---|
| MIL-S-23586 | Sealing Compound, Electrical, Silicone Rubber, Accelerator Required. |
| MIL-B-85251 | Bomb, Binary Chemical, BLU-80/B. |

STANDARDS

FEDERAL

| | |
|---|---|
| FED-STD-102 | Preservation, Packaging, and Packing Levels. |

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer, Naval Air Engineering Center, Engineering Specifications and Standards Department (ESSD) Code 93, Lakehurst, NJ 08733, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

MILITARY

| | |
|---|---|
| MIL-STD-109 | Quality Assurance Terms and Definitions. |
| MIL-STD-129 | Marking for Shipment and Storage. |
| MIL-STD-453 | Radiographic Inspection. |
| MIL-STD-810 | Environmental Test Methods. |
| MIL-STD-1168 | Ammunition Lot Numbering. |
| MIL-STD-45662 | Calibration System Requirements. |

PUBLICATIONS

Naval Sea Systems Command
(Code Ident 10001)

| | |
|---|---|
| WS-5003 | HNS Explosive. |

(Copies of specifications, standards, drawings, and publications required by contractors in connection with specified procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

DEPARTMENT OF TRANSPORTATION

Code of Federal Regulations

| | |
|---|---|
| 49 CFR 171-178 | Transportation. |

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS

| | |
|---|---|
| ASTM A 606-75 | Steel Sheet and Strip, Hot-Rolled and Cold-Rolled, High-Strength, Low-Alloy, with Improved Corrosion Resistance. |

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

3. REQUIREMENTS.

3.1 Item description. The charge is a silver sheath containing 25.0 +0.5, -0.0 grains per foot (gr/ft) of hexanitrostilebene (HNS), Type II, Grade A explosive recrystallized from an approved organic solvent system (see Figure 1).

3.2 Characteristics.

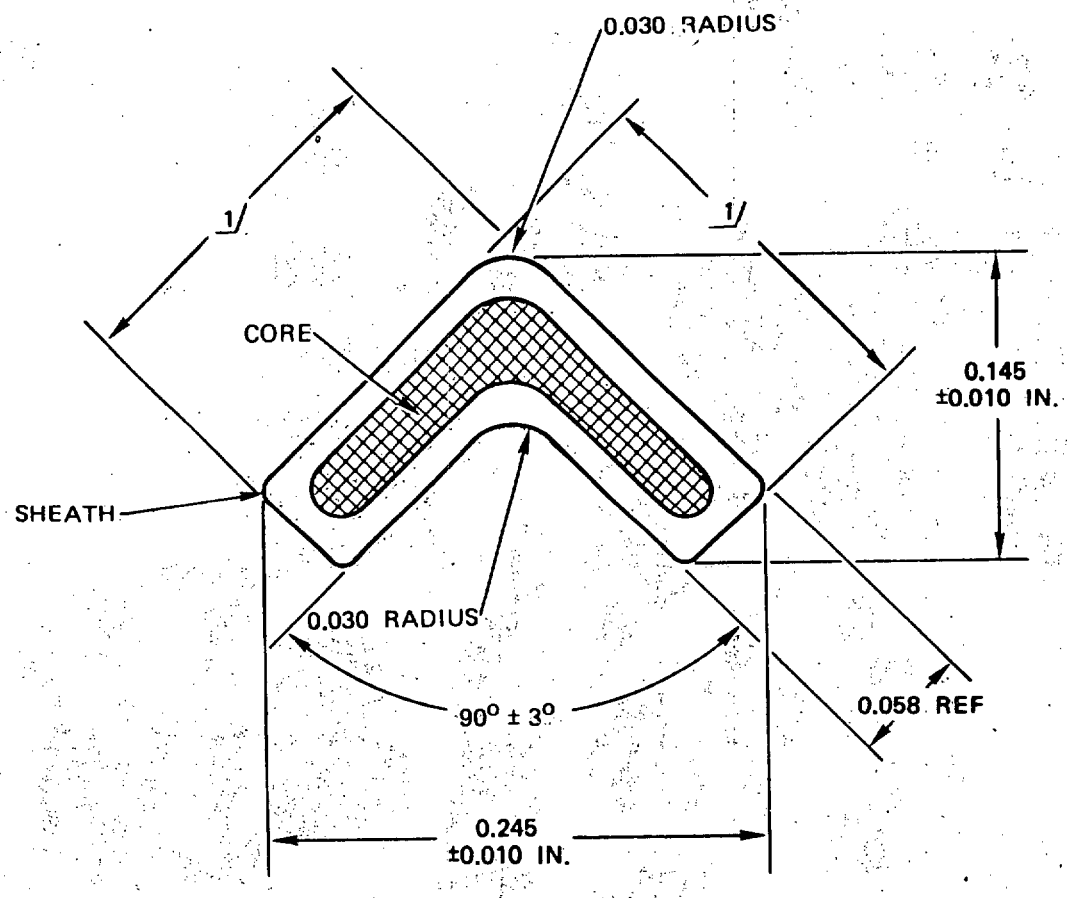
3.2.1 Performance.

3.2.1.1 Detonation velocity. The detonation velocity shall be not less than 6,000 meters per second.

3.2.1.2 Explosive force. The charge at a stand-off distance from 0.045 to 0.105 inch shall sever a 0.10-inch thick steel plate conforming to the requirements specified in Tables I and II.

TABLE I. Mechanical properties.

| Property | Value |
|---|---|
| Yield strength, min $lb/in^2$ | 45,000 |
| Tensile strength, min $lb/in^2$ | 65,000 |
| Elongation in 2 inches, min percent | 20 |




1/ INDICATED DIMENSIONS TO BE EQUAL WITHIN 0.008 INCH

FIGURE 1. Change configuration (cross section).

TABLE II. Chemical composition.

| Elements | Percent | |
|---|---|---|
| | Minimum | Maximum |
| Carbon | --- | 0.12 |
| Manganese | 0.20 | 0.50 |
| Nickel | --- | 0.65 |
| Phosphorous | 0.07 | 0.15 |
| Sulfur | --- | 0.05 |
| Silicon | 0.25 | 0.75 |
| Copper | 0.25 | 0.55 |
| Chromium | 0.30 | 1.25 |

NOTE: CORTEN B conforming to ASTM A 606, Type 4, cold rolled, meets the above requirements.

3.2.1.3 Minimum bend radius. The charge shall withstand being bent to a 1-inch radius without visual signs of cracking or splitting of the metal sheath or degradation of performance.

3.2.1.4 Low temperature. The charge shall withstand a low temperature of -62 degrees Celsius (°C) for 336 hours without degradation of performance.

3.2.1.5 High temperature. The charge shall withstand a high temperature of +74°C for 336 hours without degradation of performance.

3.2.1.6 Impact resistance. The charge, when mounted on a steel plate, shall not detonate, deflagrate, or burn when impact with a 20.0 ±0.5 pound solid steel ball dropped from a height of 30.0 +0.5, -0.0 inches.

3.2.1.7 Thermal shock. The charge shall withstand alternate, sequential exposure to temperatures of -48°C for 90 minutes, +75°C for 30 minutes, and +254°C for 5 minutes without degradation of performance, and shall not constitute a safety hazard after exposure to thermal shock.

3.2.1.8 High temperature (safety). The charge shall withstand alternate sequential exposure to temperatures of +99 ±3°C for 2 hours, +280 ±3°C for 5 minutes, and +225 ±3°C for 20 minutes without detonating, and without constituting a safety hazard after thermal exposure.

3.3 Design and construction.

3.3.1 Materials, processes, and parts. The design and construction of the charge shall be as follows.

3.3.1.1 Material. The material used in the manufacture of the charge shall be as follows:

a. Sheath: Seamless fine silver of 99.9 percent minimum purity.

b. Core: HNS, Type II, Grade A, recrystallized from an approved organic solvent and conforming to WS-5003.

3.3.1.2 Dimensions. The charge shall conform to the dimensions shown on Figure 1.

3.3.1.3 Splicing. There shall be no splicing.

3.3.1.4 Core load. The core load shall be 25.0 +0.5, -0.0 gr/ft.

3.3.1.5 Explosive uniformity. The explosive core and metal sheath shall be continuous and shall be free from gaps, voids, inclusions, or impurities.

3.3.2 Standards of manufacture. When specified in the contract or purchase order (see 6.2.2), the contractor shall include written certification accompanied by objective quality evidence as defined in MIL-STD-109, that the materials, processes, and parts used in the charge meet the requirements of Section 3.

3.3.3 Identification and marking. Each piece of charge shall be legibly identified to the run from which the charge was cut. On the leading end, attach a tag or tape with the supplier's lot number, sublot number, and sequence number marked in permanent ink. Individual lengths shorter than as specified herein shall be marked by sequence numbers which identify the position of that sequence length within a sublot (see Figure 2). Lot numbering shall be in accordance with MIL-STD-1168.

| Example: | Lot | Sublot | Sequential lengths |
|---|---|---|---|
| | ABC79A018-001A | -11 | -1 |

3.4 First article. Unless otherwise specified in the contract or purchase order, the contractor shall furnish a preproduction sample consisting of one completed drawtube for first article inspection and approval (see 4.1.2.2 and 6.2.1) The preproduction sample shall be manufactured using the same methods, materials, processes, and procedures proposed for production. Any production prior to acceptance of the preproduction sample shall be at the risk of the contractor. Any changes in materials, design, and processes used after the manufacture of the preproduction sample may be cause for resubmission of a preproduction sample.

3.4.1 Retest. At the discretion of the procuring activity, preproduction tests, or any portion thereof shall be repeated under any of the following conditions:

a. When the manufacturer has modified the product (such as a change of raw materials, processes, production procedures, or methods).

b. Where there is evidence that the quality of the product has not been maintained. This evidence may be in the form of accumulated product failures, of system failures attributable to the product, or failure of the product to pass any of the tests for production lot acceptance that may be conducted by or for the procuring activity.

c. When production data package has been amended or revised sufficiently so that continued validity of the previous preproduction testing is questionable.

d. When the manufacturer has not produced charges to this specification for a period of 12 months or longer.

e. When manufacturer changes location at which the charge is produced.

3.5 Documentation. When specified in the contract or purchase order (see 6.2.2), inspection reports shall be prepared as specified in 4.1.2.5 and 4.2.4.

3.6 Workmanship. The device shall be fabricated in a manner that will ensure compliance with all requirements of this specification and the assembly drawing. The charge shall be free from cracks, scratches, gouges, dents, laps, seams, bends, kinks, or evidence of corrosion.

3.6.1 Special working environments. Special working environments for the manufacture of the charge shall be as specified in MIL-B-85251.

4. QUALITY ASSURANCE PROVISIONS.

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein (see 6.2.1). Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

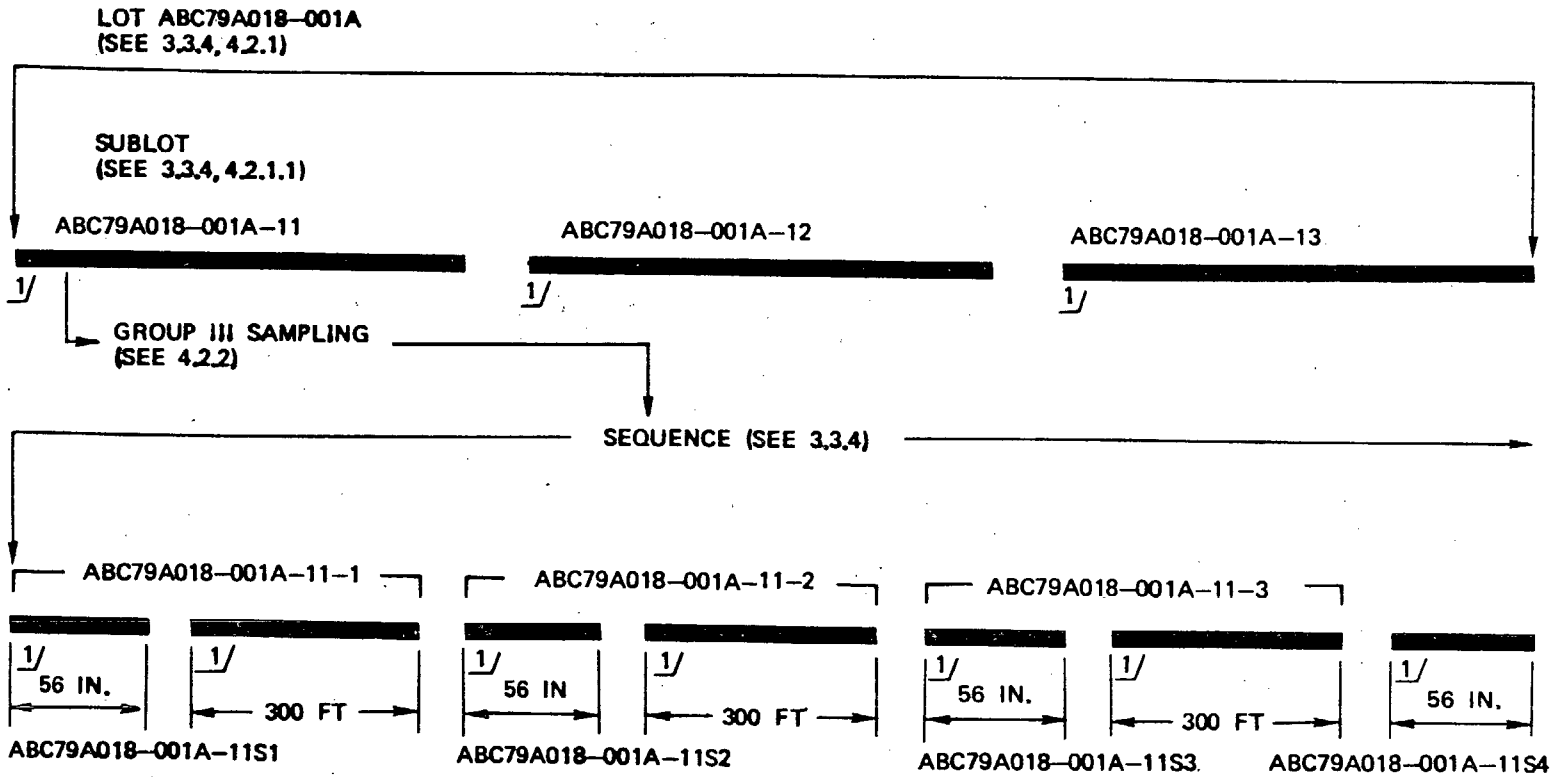
4.1.1 Classification of inspections. The examinations and tests specified herein shall be classified as follows:

a. Preproduction inspections (see 4.1.2.1).

b. Quality conformance inspections (see 4.2).

4.1.2 Special tests and examinations.

4.1.2.1 Preproduction inspections. The preproduction sample of one completed drawtube shall be subjected to the examinations and tests of Table III in the sequence shown.




NOTES:

1/ INDICATES LEADING END AND DIRECTION OF EXTRUSION.
SAMPLING LENGTHS SHOWN ARE FOR QUALITY CONFORMANCE INSPECTIONS (SEE 4.2.2.1).
FOR PREPRODUCTION SAMPLING LENGTHS, SEE 4.1.2.2.

FIGURE 2. Charge partitioning and identification.

TABLE III. Preproduction inspections.

| Examination or test | Requirement paragraph | Method paragraph |
|---|---|---|
| Group I | | |
| Visual | 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.2, 3.3.3, 3.6 | 4.3.2 |
| Radiographic inspection | 3.3.1.5 | 4.3.10 |
| Group II | | |
| Core load | 3.3.1.4 | 4.3.3 |
| Detonation velocity and explosive force | 3.2.1.1, 3.2.1.2 | 4.3.4 |
| Minimum bend radius | 3.2.1.3 | 4.3.9 |
| Impact resistance | 3.2.1.6 | 4.3.7 |
| Group III | | |
| High temperature | 3.2.1.5 | 4.3.6 |
| Low temperature | 3.2.1.4 | 4.3.5 |
| Temperature shock | 3.2.1.7 | 4.3.8 |
| High temperature (safety) | 3.2.1.8 | 4.3.11 |

4.1.2.2 Preproduction sample preparation. The preproduction sample of 3.4 shall undergo Group I examinations and then subsamples 158 ±1 inches in length shall be taken from the original leading and terminal ends and from each 100 +5 feet of the preproduction sample, however, no less than 10 subsamples are required. Each subsample shall be assigned a unique number for identification, and tagged in the same manner as a sublot. Each subsample shall be sectioned for testing as follows:

a. Cut off 1.0 ±0.1 inches at each end and discard.

b. Cut off the succeeding 6.0 ±0.1 inches and reserve for core load tests (see 4.3.3).

c. Cut off the succeeding 24.0 ±0.1 inches and reserve for detonation velocity and explosive force tests (see 4.3.4).

d. Cut off the succeeding 24.0 ±0.1 inches and reserve for low temperature tests (see 4.3.5).

e. Cut off the succeeding 24.0 ±0.1 inches and reserve for high temperature tests (see 4.3.6).

f. Cut off the succeeding 24.0 ±0.1 inches and reserve for thermal shock tests (see 4.3.8).

g. Cut off the succeeding 24.0 ±0.1 inches and reserve for minimum bend radius tests (see 4.3.9).

h. Cut off the succeeding 6.0 ±0.1 inches and reserve for the impact resistance tests (see 4.3.7).

i. Reserve the remainder for the high temperature (safety) tests (see 4.3.11).

4.1.2.3 Acceptance criteria. Failure of the sample charge in the preproduction sample to pass any of the preproduction tests shall reject the preproduction sample.

4.1.2.4 Disposition of preproduction sample. If results of the preproduction sample tests of Table III are acceptable, unused portions of the preproduction sample charge may be marked for use in hardware applications upon receipt of written approval from the procuring activity (see 6.2.1).

4.1.2.5 Preproduction inspection report. When specified in the contract or purchase order (see 6.2.2), results of the preproduction inspections shall be prepared for the procuring activity. The report shall contain the following information accompanied by a certification which attests that the information provided is correct and applicable to the product being submitted:

a. A statement that the preproduction sample complies with all quality assurance provisions of this specification for the charge specified in the contract or purchase order.

b. Number of units of product inspected.

c. Results obtained for all inspections performed, including copies of raw data for core load and all detonation velocity measurements.

d. Contract or purchase order number and date, together with an identification and date of changes.

e. Certificates of compliance of all material procured directly by the contractor.

f. Date submitted.

The certification shall be signed by a responsible agent of the certifying organization. The initial certification shall be substantiated by evidence of the agent's authority to bind his principal. Substantiation of the agent's authority will not be required with subsequent certifications unless, during the course of the contract, this authority is vested in another agent of the certifying organization.

4.2 Quality conformance inspections. Each inspection lot of charge submitted for acceptance shall be subjected to the examinations and tests specified in Table IV, in the sequence shown.

TABLE IV. Quality conformance inspections.

| Examination or test | Requirement paragraph | Method paragraph |
|---|---|---|
| Group I | | |
| Certification | 3.3.2 | 4.2.4 |
| Group II (100%) | | |
| Visual | 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.2, 3.3.3, 3.6 | 4.3.2 |
| Radiographic inspection | 3.3.1.5 | 4.3.10 |
| Group III (sample) | | |
| Core load | 3.3.1.4 | 4.3.3 |
| Detonation velocity and explosive force | 3.2.1.1, 3.2.1.2 | 4.3.4 |
| Minimum bend radius | 3.2.1.3 | 4.3.9 |

4.2.1 Lot. A lot shall not exceed that quantity of charge produced in one continuous process using a single lot of HNS, Type II, Grade A, explosive recrystallized from an approved organic solvent system and a single lot of sheathing material. Homogeneity shall be considered to exist provided the lot has been produced by one manufacturer, in one unchanged process, in accordance with this specification.

4.2.1.1 Sublot. A sublot shall consist of one length of drawtube of sheath material fabricated into a single extrusion. Each sublot shall constitute an inspection lot. Quality conformance inspections shall be performed on each inspection lot for acceptance or rejection of the lot represented.

4.2.2 Sampling. Sampling for quality conformance inspections shall be as follows:

a. Group I: No sample; certification required for each inspection lot.

b. Group II: No sample; 100 percent of each inspection lot shall be subjected to Group II inspections.

c. Group III: Each inspection lot shall be sampled for Group III tests by taking one 56 ±1 inch sample from the original leading and terminal ends and one 56 ±1 inch sample from each 300 ±10 feet of charge in the inspection lot (see Figure 2). Each sample shall be uniquely identified as to its origin in the inspection lot.

4.2.2.1 Sample sectioning. Each of the Group III samples shall be sectioned for testing as follows:

a. Cut off 1.0 +0.1 inch of the original leading and terminal end and discard.

b. Cut off the succeeding 6.0 ±0.1 inches and reserve for the core load test (see 4.3.3).

c. Cut off the succeeding 24.0 ±0.1 inches and reserve for the detonation velocity and explosive force test (see 4.3.4).

d. Reserve the remainder for the minimum bend radius test (see 4.3.9).

4.2.3 Acceptance criteria. Failure of any sample to pass any of the Group II or III tests shall reject the inspection lot represented.

4.2.4 Quality conformance inspection report. When specified in the contract or purchase order (see 6.2.2), results of the quality conformance inspections shall be included with each lot. Reports shall contain the following information accompanied by a certification which attests that the information provided is correct and applicable to the product being submitted:

a. A statement that the lot complies with all quality assurance provisions of the specification for the charge specified in the contract or purchase order.

b. Number of units of product inspected.

c. Results obtained for all inspections performed, including raw data for core load and all detonation velocity measurements.

d. Contract or purchase order number and date, together with an identification and date of changes.

e. Certificates of compliance of all material procured directly by the contractor.

f. Number of items in the lot.

g. Date submitted.

The certification shall be signed by a responsible agent of the certifying organization. The initial certification shall be substantiated by evidence of the agent's authority to bind his principal. Substantiation of the agent's authority will not be required with subsequent certifications unless, during the course of the contract, this authority is vested in another agent of the certifying organization.

4.3 Inspection methods.

4.3.1 Test equipment and conditions.

4.3.1.1 Standard test equipment. The contractor shall provide and maintain an adequate system of test equipment necessary to ensure that parts and products will meet the specification requirements at the rate of delivery specified in the contract or purchase order. The calibration of measuring and test equipment shall be in accordance with MIL-STD-45662. Test equipment, including associated calibration programs and operation and maintenance procedures, are subject to disapproval by the procuring activity. When special test equipment is employed, such equipment circuits and methods are subject to disapproval by the procuring activity. Unless otherwise specified herein, the magnitude of any error introduced by the equipment shall not exceed 10 percent of the tolerance of the requirement being measured.

4.3.1.2 Test conditions. Unless otherwise specified herein, all tests shall be conducted at the test area ambient temperature and relative humidity. Where special conditions of tests are specified, equipment employed shall adequately provide specified conditions, and all monitoring and measurement devices shall conform to the requirements of 4.3.1.1. When special conditions of tests are not imposed, commercially available direct-measurement equipment may be employed provided they conform to the requirements of 4.3.1.1.

4.3.2 Visual and mechanical examination. The charge shall be examined to determine compliance with dimensions, identification, and workmanship (see 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.2, 3.3.3, and 3.6).

4.3.3 Core load. The charge test samples shall be weighed before and after dissolving out the explosive core. To be acceptable, the core load shall be as specified in 3.3.1.4.

4.3.4 Detonation velocity and explosive force. The detonation velocity and explosive force shall be determined by firing the charge against a steel witness plate as specified in Figure 3 (see 3.2.1.2). The charge shall be fired at the maximum stand-off distance specified in 3.2.1.2 and shall be initiated as specified in 3.2.1.3. The detonation velocity measurement shall be made with an electric time intervalometer, an oscilloscope, or similar method capable of an accuracy of ±0.5 percent. The measurement

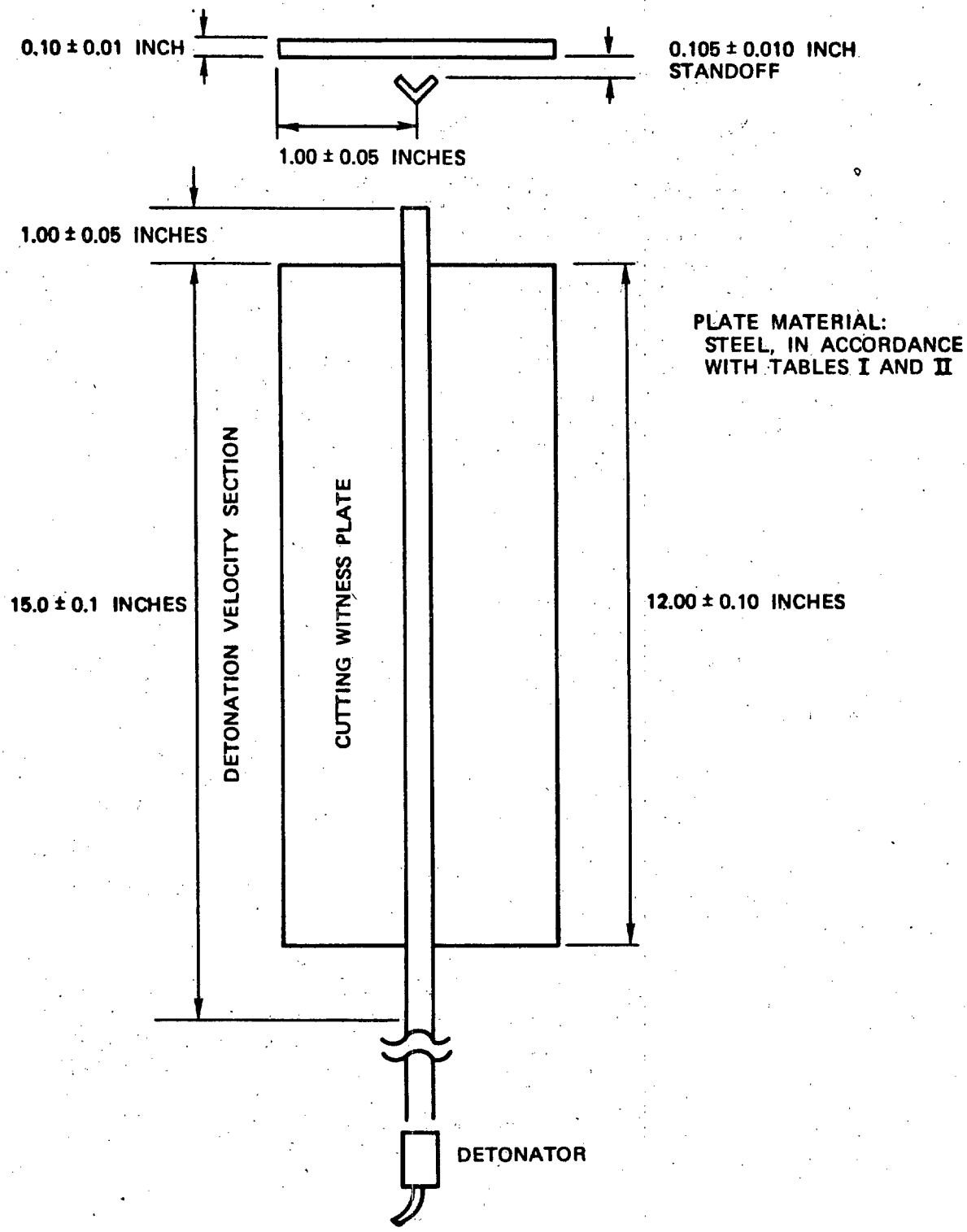



FIGURE 3. Witness plate.

shall be made over a 15.0 ±0.1 inch section of the nominal 24-inch test sample, and located 1.0 ±0.1 inch from the end of the charge opposite the detonator (see Figure 3). The detonation velocity and charge temperature immediately prior to firing shall be recorded. To be acceptable, the detonation shall be as specified in 3.2.1.1, and the witness plate shall be completely severed.

4.3.5 Low temperature test. The charge samples shall be subjected to the low temperature test of MIL-STD-810, Method 502.1, except the temperature shall be -62 ±3°C and the test time shall be no less than 336 hours. The charge shall be fired at ambient temperature and detonation velocity measured in accordance with 4.3.4. To be acceptable, the detonating velocity shall be not less than that specified in 3.2.1.1, and the witness plate shall be completely severed.

4.3.6 High temperature test. Testing shall be conducted in accordance with MIL-STD-810, Method 501.1. The charge samples shall be placed in a temperature-conditioned chamber maintained at an internal temperature of +74 ±3°C for no less than 336 hours. The charge samples shall then be fired at ambient temperature and detonation velocity measured in accordance with 4.3.4. To be acceptable, the detonation velocity shall be not less than that specified in 3.2.1.1, and the witness plate shall be completely severed.

4.3.7 Impact resistance test. The charge sample shall be placed between two steel plates (2 x 2 x 0.25 inches) supported by a solid base (see Figure 4). The upper plate shall be impacted by a solid steel ball weighing 20.0 ±0.5 pounds dropped from a height of 30.0 +0.5, -0.0 inches. The charge shall meet the requirements of 3.2.1.7 and shall not detonate, deflagrate, or burn as a result of impact, and shall be safe to handle and dispose of.

4.3.8 Temperature shock. Testing shall be conducted in accordance with MIL-STD-810, Method 503.1. Place charge samples in a temperature-conditioned chamber maintained at an internal temperature of -48 ±3°C for no less than 90 minutes. At the end of the 90-minute period, transfer the charge samples to a chamber temperature conditioned to +75 ±3°C. Complete the transfer between the two chambers within 1 minute. The charge samples shall remain in the chamber for no less than 30 minutes.

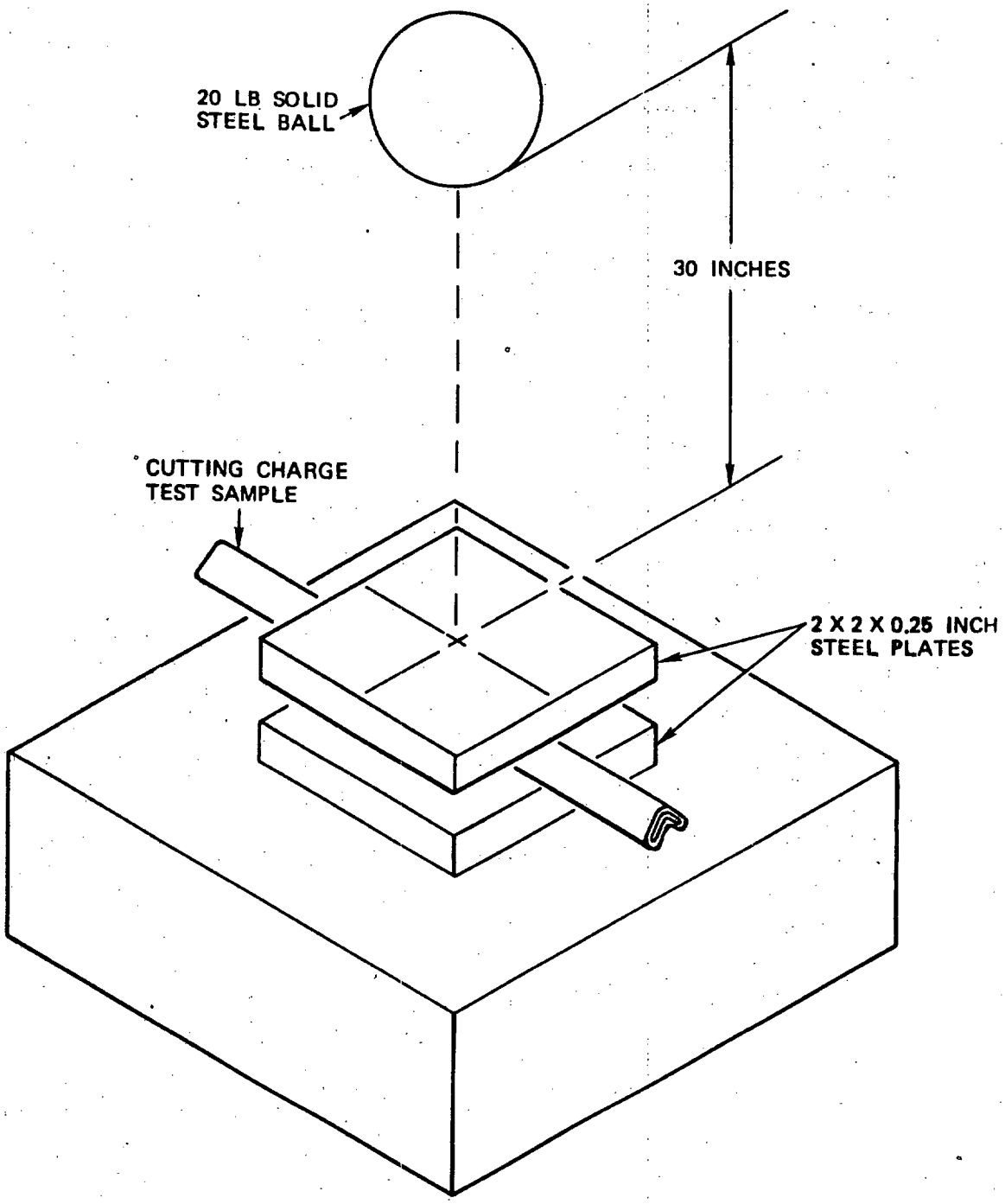



FIGURE 4. Impact resistance test arrangement.

At the end of the 30-minute period, transfer the charge samples to a chamber temperature conditioned to +254 ±3°C. Complete the transfer between chambers within 1 minute. The charge samples shall remain in the chamber for no less than 5 minutes. The charge samples shall then be fired in accordance with 4.3.4 at a temperature of +254 ±3°C. To be acceptable, the detonating velocity shall be not less than that specified in 3.2.1.1, and the witness plate shall be completely severed.

4.3.9 Minimum bend radius. The minimum bend radius capability shall be determined by spirally wrapping a 6-inch charge section one complete 360-degree turn around a 2.0 inch diameter rod as shown on Figure 5 and visually examining the sheath for evidence of cracking or splitting. Any evidence of cracking, breaking, or splitting of the metal sheath shall reject the inspection lot represented. The detonation velocity and explosive force test of 4.3.4 shall be conducted after straightening the section. The detonation velocity and cutting capability shall be measured starting 1.0 ±0.1 inches from the end identified on Figure 5. To be acceptable the witness plate shall be completely severed and the detonation velocity shall be as specified in 3.2.1.1, and shall not vary more than 5 percent from the detonation velocity determined from the sample of 4.2.2.1c or 4.1.2.2c, as applicable.

4.3.10 Radiographic inspection. Radiographic inspection of the charge shall be in accordance with MIL-STD-453. To be acceptable, the charge shall meet the requirements of 3.3.1.5.

4.3.11 High temperature (safety) test. Testing shall be conducted in accordance with MIL-STD-810, Method 501.1. The charge samples shall be placed in a temperature-conditioned chamber maintained at an internal temperature of +99 ±3°C for 120 minutes. At the end of the 120-minute period, transfer the charge samples to a chamber which is temperature conditioned to +280 ±3°C. Complete the transfer between the two chambers within 1 minute. The charge samples shall remain in the +280°C chamber for 5 minutes. At the end of the 5-minute period, transfer the charge samples to a chamber maintained at an internal temperature of +225 ±3°C for 20 minutes. Complete the transfer between the two chambers within 1 minute. To be acceptable, the charge shall meet the requirements of 3.2.1.9 and shall not detonate as a result of the high temperature (safety) test, and shall be safe to handle and dispose of.

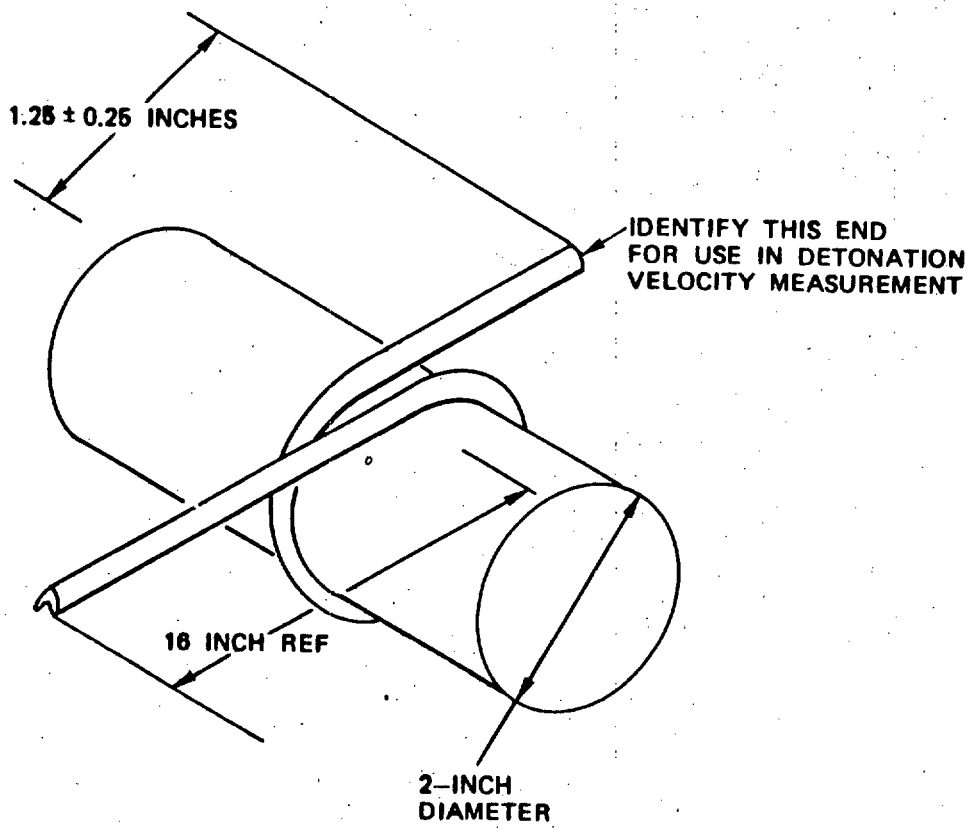



FIGURE 5. Minimum bending radius test arrangement.

4.4 Packaging, packing and marking. Prior to shipment, examination shall be made to ensure that packaging, packing, and marking are in accordance with the requirements of Section 5.

## 5. PACKAGING.

5.1 Preservation-packaging. Preservation and packaging shall be Level C in accordance with FED-STD-102.

5.1.1 Preservation. Preservatives shall not be used. The free ends of each length of charge shall be sealed using rubber compound, MIL-S-23586, Type III, Class 2, Grade A, with primer recommended by manufacturer of the rubber compound. Length of seal coating shall be not greater that 0.50 inch.

5.1.2 Packaging. Lengths of charge shall be packaged in a manner to ensure delivery to the first destination without corrosion, deterioration, or damage to the charge. Lengths shall be protected to preclude a bend or waviness greater than 0.25 inch per foot. Packaging shall conform to the Code of Federal Regulations, 49 CFR 171-178, for shipment of Class A explosive.

5.2 Packing. Packing shall be Level C in accordance with FED-STD-102. The packaged charge shall be packed in shipping containers in a manner that will afford adequate protection against damage during direct shipment from the supply source to the first receiving activity. These packs shall conform to the applicable carrier rules and regulations for Level C. Packing shall conform to the Code of Federal Regulations, 49 CFR 171-178, for shipment of Class C explosives.

5.3 Marking. In addition to any special markings required by the contract or purchase order (see 6.2.1), each package and shipping container shall be marked in accordance with MIL-STD-129.

## 6. NOTES AND CONCLUDING MATERIAL.

6.1 Intended use. The charge is intended to open the dissemination ports of a binary chemical bomb.

6.2 Ordering data.

6.2.1 Procurement requirements. Procurement documents should specify the following:

a. Title, number, and date of this specification.

b. When a first article is required, it should be tested and approved under the appropriate provisions of 7-104.55 of the Defense Acquisition Regulations (DAR). The first article should be a preproduction sample consisting of one completed drawtube as specified in 3.4. The contracting officer should include specific instructions in all procurement instruments, regarding arrangments for examinations, test and approval of the first article.

c. Responsibility for inspection and test facilities if different from 4.1.

d. Disposition of preproduction sample (see 4.1.2.4).

e. Special markings (see 5.3).

6.2.2 Data requirements. When this specification is used in a procurement which incorporates a Contract Data Requirements List (DD Form 1423) and invokes the provisions of 7-104.9(n) of the DAR, the data requirements identified below will be developed as specified by an approved Data Item Description (DID) (DD Form 1664) and delivered in accordance with the approved DD Form 1423 incorporated in the contract. When the provisions of DAR 7-104.9(n) are not invoked, the data specified below will be delivered by the contractor in accordance with the contract requirements. Deliverable data required by this specification are cited as follows:

| Paragraph | Data Requirements | Applicable DID |
|---|---|---|
| 3.3.2, 4.1.2.5, 4.2.4 | Certificate of compliance | DI-E-2121 |
| 3.5, 4.1.2.5, 4.2.4 | Inspection report | DI-T-2072 |

(Copies of DIDs required by the contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

6.3 Safety precautions. The loading, assembly and handling of the explosives, subassemblies, and the finished items covered by this specification involve hazardous operations and require explosive safety precautions as stated in DoD 4145.26M.

Preparing activity:
Navy - AS

(Project 1377-N675)

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS: This form is provided to solicit beneficial comments which may improve this document and enhance its use. DoD contractors, government activities, manufacturers, vendors, or other prospective users of the document are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity. A response will be provided to the submitter, when name and address is provided, within 30 days indicating that the 1426 was received and when any appropriate action on it will be completed.
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