

**SPECIFICATION
FOR
STAPLERS, PAPER FASTENING**

(This specification is released for procurement purposes until revised or rescinded)

SCOPE

This specification covers the requirements for paper fastening staplers. It is not intended to cover all types and styles of staplers that are available, but only those generally used by state agencies and public education systems.

I. CLASSIFICATION

Staplers shall be classified by Type, Class, and Size as follows:

Type I - Desk Type

Class 1 - Heavy Duty, Tension Spring

Size 1 - Full Strip, 4" Minimum Reach

Class 2 - Medium Duty, Tension Spring

Size 1 - Full Strip, 4" Minimum Reach

Size 2 - Half Strip, 2 1/2" Minimum Reach

Class 3 - Medium Duty, Compression Spring

Size 1 - Full Strip, 4" Minimum Reach

Size 2 - Half Strip, 2 1/2" Minimum Reach

Type II - Lever Type, Heavy Duty

Type III - Hand Held

Type IV - Pliers Type

Type V - Electric

Class 1 - Full Strip Type

Class 2 - Cartridge Type

II. REQUIREMENTS

A. General Requirements

1. Identification

The manufacturer's name or trademark and model number shall be stamped in a conspicuous place on each stapler.

2. Finish

All metal surfaces shall be either painted or plated. If painted, sufficient coats of paint shall be applied and conform to the best industry standards of quality and method of application. Plating, if used, shall be cadmium, chrome, or nickel and applied in accordance with the best industry standards of quality and method. All metal parts must have a corrosion-resistant finish or protective coating. The assembled stapler must be free of sharp or rough edges and other defects which may affect appearance or serviceability.

3. Springs

Spring steel shall be used for all feeder springs, and heat-treated for sufficient hardness to provide for satisfactory functioning of the stapler. The spring shall be attached to the follower in a manner that will not cause a bending fatigue point and cause the spring to rupture or interfere with the smooth operation of the spring.

4. Staple Drivers

Staple drivers shall be made of spring steel, and hardened equally over the whole length to an equivalent Rockwell hardness of 40 to 55 on the C scale.

5. Anvils

Except for Types III and IV, case-hardened or hardened-throughout steel shall be used for the anvil, with a hardness of 85 (15-N-85) to 95 (15-N-95) Rockwell Superficial.

6. Bases

Bases may be of either steel or zinc casting, but must be of adequate structural strength to withstand the evaluation and performance tests contained herein. Bases shall have durable pads or feet firmly affixed to the underside to prevent scratching or marring finished surfaces.

7. Follow-Blocks, Hinge Pins And Plungers (Staple Driver Actuator)

Follow-Blocks are to be made of metal suitable for their function. Hinge pins are to be made of iron or steel with a Rockwell hardness of 65 to 80 on the B scale. Plungers (or other staple driver actuators) must be of iron or steel, as above, or of zinc alloys suitable for the design purpose.

B. Specific Requirements

Type I - Desk Type

Class 1 - Heavy Duty, Tension Spring

1. A tension type spring shall be attached to the follower to feed the staples. Compression type springs are not acceptable.

2. The outside diameter of the spring shall be a minimum of 0.165" when measured with the coils at 90 degrees to the inner rails.
3. The clinching anvil shall be a separate unit, attached to, but not integral with the base.
4. The anvil must produce "Standard" and "Pin" clinch, with an easy and convenient method of reversing the anvil.
5. Full length inner rails are required
6. The staple driver shall be mounted with a minimum of two (2) rivets.
7. The base must swing back for tacking
8. A positive tacking latch is required.
9. The stapler must be all metal construction, except for the top cap which may be plastic.
10. A steel tie plate shall be attached to the front of the stapler to hold the channel together.
11. Staple capacity (Min.): 210, 1/4" leg length, standard staples.
12. Minimum reach: 4"

Class 2 - Medium Duty, Tension Spring

1. A tension type spring shall be attached to the follower to feed the staples. Compression type springs are not acceptable.
2. The outside diameter of the spring shall be a minimum of 0.125" when measured with the coils at 90 degrees to the inner rails.
3. The clinching anvil shall be a separate unit, attached to, but not integral with the base.
4. The anvil must produce "Standard" and "Pin" clinch, with an easy and convenient method of reversing the anvil.
5. Full length inner rails are required
6. The base must swing back for tacking
7. The stapler must be all metal construction, except for the top cap which may be plastic.
8. A steel tie plate shall be attached to the front of the stapler to hold the channel together.
9. Staple capacity and size (Min.): Size 1: 210, 1/4" leg length, standard staples. Size 2: 105, 1/4" leg length, standard staples.
10. Minimum reach: Size 1: 4", Size 2: 2 1/2"

Class 3 - Medium Duty, Compression Spring

1. A compression type spring shall be attached to the follower to feed the staples.
2. The clinching anvil shall be a separate unit, attached to, but not integral with the base.
3. The anvil must produce "Standard" and "Pin" clinch, with an easy and convenient method of reversing the anvil.
4. Full length inner rails are required
5. The base must swing back for tacking
6. The stapler must be all metal construction, except for the top cap which may be plastic.
7. Staple capacity and size (Min.): Size 1: 210, 1/4" leg length, standard staples. Size 2: 105, 1/4" leg length, standard staples.
8. Minimum reach: Size 1: 4", Size 2: 2 1/2"

Type II - Lever Type, Heavy Duty

1. Full length metal inner rails are required.
2. The stapler base and arm must be all metal construction, except for a top cap or trim on the arm which may be plastic.
3. The clinching anvil shall be permanently mounted to the base.
4. The anvil shall produce the "Standard" clinch

5. The stapler shall be capable of using 1/4", 3/8", and 1/2" leg length heavy duty staples as a minimum.
6. The staple capacity shall be a minimum of 100 heavy duty staples.
7. The stapler must have an adjustable depth gauge.
8. Minimum throat depth: 2 3/4"

Type III - Hand Held

1. The stapler shall be designed and constructed for hand-held stapling operations.
2. The clinching anvil shall be an integral part of the base.
3. The anvil must produce "Standard" clinch.
4. Full length inner rails are required
5. A steel tie plate shall be attached to the front of the stapler to hold the channel together.
6. The base must swing back for tacking
7. The stapler must be all metal construction, except for the top cap which may be plastic.
8. The staple capacity shall be a minimum of 105, 1/4" leg length, standard staples.
9. Minimum reach: 2 1/2"
10. Overall length: 5" maximum.

Type IV - Pliers Type

1. The stapler shall be designed and constructed for hand-held stapling operations.
2. The clinching anvil shall be an integral part of the base, or affixed to the base with a minimum of two (2) rivets.
3. The anvil must produce "Standard" clinch.
4. Full length inner rails are required
5. The stapler must be all metal construction, except for the top cap and handle trim which may be plastic.
6. The staple capacity shall be a minimum of 210, 1/4" leg length, standard staples.
7. Minimum reach: 2 1/4"
8. Overall length: 8" maximum.

Type V - Electric

Class 1 - Full Strip Type

1. Electrical requirements: 115 volt AC
2. Power cord length: 5' minimum
3. The stapler shall be listed by Underwriters Laboratories
4. The stapler shall be designed and constructed for electric stapling operations.
5. The clinching anvil shall be affixed to, or be an integral part of the base.
6. The anvil must produce "Standard" clinch.
7. Full length metal inner rails are required
8. An adjustable depth gauge is required.
9. The manufacturer's name, make, model name or number, serial number, and the UL listing shall be clearly displayed on the stapler.
10. A pad, or feet, of resilient material shall be affixed to the base to prevent scratching or marring of finished surfaces.
11. The staple capacity shall be a minimum of 210, 1/4" leg length, standard staples.

Class 2 - Cartridge Type

1. Electrical requirements: 115 volt AC or 24 volt DC

2. Power cord length: 5' minimum
3. The stapler shall be listed by Underwriters Laboratories
4. The stapler shall be designed and constructed for electric stapling operations.
5. The clinching anvil shall be affixed to, or be an integral part of the base.
6. The anvil must produce "Standard" clinch.
8. An adjustable depth gauge is required.
9. The manufacturer's name, make, model name or number, serial number, and the UL listing shall be clearly displayed on the stapler.
10. A pad, or feet, of resilient material shall be affixed to the base to prevent scratching or marring of finished surfaces.
11. Staples are supplied to the stapler in a cartridge, which must be easy to load.
12. The staple capacity shall be a minimum of 5,000 staples.

IV. WARRANTY

Staplers furnished under this specification shall be new and shall be guaranteed against defects in materials, workmanship, and performance in accordance with the manufacturer's standard warranty, except that in no event shall such coverage be for less than one (1) year from date of delivery to the ordering agency. Defective units shall be repaired or replaced during the warranty period at no cost to the owner or his representative. Contractors shall maintain a spare parts inventory of known high mortality parts or components for at least three (3) years after the expiration of the initial warranty.

V. ACCEPTANCE EVALUATION AND QUALITY ASSURANCE

A. Performance

All staplers furnished under this specification must pass the performance tests outlined herein.

Type I - Desk Type

Set the clinching anvil to produce the "Standard" clinch. Insert a full strip (or half strip, depending on the size stapler) of 1/4" standard duty staples in the stapler. Drive and clinch at least 20 staples through two (2) sheets of 20 pound good quality sulphite bond paper. Repeat the test using 18 sheets and at least 50 staples. Examine staples for proper clinch, and for fracture and malformation. Observe for any malfunction of the stapler.

Type II - Lever Type, Heavy Duty

Clinch at least 50 1/4" heavy duty staples through 32 sheets of 20 pound paper. Repeat the test using 50 1/2" heavy duty staples and 90 sheets of paper. Examine the staples for proper clinch, and for fracture or malformation. Observe for any malfunction of the stapler.

Type III - Hand Held

Follow the same test procedure as for Type I, except using 10 sheets of paper in lieu of 18 sheets.

Type IV - Pliers Type

Follow the same test procedure as for Type I, except using 30 sheets of paper in lieu of 18 sheets.

Type V - Electric

Follow the same test procedure as for Type I, except using 14 sheets of paper in lieu of 18 sheets.

B. Rockwell Hardness

Determine hardness with a rockwell hardness tester. In determining the hardness of the staple driver and anvil, convert the results obtained on another scale (Rockwell or Rockwell Superficial Tester) to the Rockwell C scales.

VI. DELIVERY AND PAYMENT

Delivery and payment for commodities under this specification shall be in accordance with the terms and conditions of the Invitation for Bids. The contractor shall be responsible for any packing, packaging, or protection required to insure delivery in undamaged condition.

VII. ORDERING DATA (For Purchase & Contract use only)

Purchasers should exercise any desired options offered herein and should specify the following information in the requisition and Invitation For Bids:

1. Title, number, and date of this specification
2. Types, Classes and sizes of staplers desired (See Section I, CLASSIFICATION)

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