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* INCH-POUND *

A-A-50500
September 6, 1991

COMMERCIAL ITEM DESCRIPTION

DOUGH DIVIDER, ROLL, HAND OPERATED, 36-PART AND DOUGH DIVIDER AND ROUNDING MACHINE, ROLL, 36-PART.

The General Services Administration has authorized the use of this commercial item description in preference to Military specification MIL-D-3886, when non-shipboard use is intended.

Abstract. This commercial item description covers a 36 or 18-part, hand operated, dough divider machine. It also covers a semi-automatic, electrically operated, dough divider and rounding machine which has an interchangeable and removable standard 36-part dividing head assembly, with the availability of interchangeable optional 6, 9 or 18-part divider head assemblies.

These machines are intended to divide whole pieces of dough into 36, 18, 9 or 6-part equal dough portions, depending on the type of machine and accessories ordered. These machines are intended for use in non-shipboard bakeries. The types are as follows:

TYPES AND PART NUMBERS

Type IA: 36-part dough divider machine, bench or stand mounted, manually operated. (The range of roll sizes are from 1 1/3 oz. up to 3 1/3 ozs.)

Type IB: 18-part dough divider machine, bench or stand mounted, manually operated. (The range of roll sizes are from 2 oz. up to 6 oz.)

Type II: Dough divider and rounding machine, floor mounted, semi-automatic, electrically operated, featuring removable and interchangeable divider head assemblies.

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Beneficial comments (recommendations, additions, deletions) and any pertinent
*data which may be of use in improving this document should be addressed to: *
*Commanding Officer (Code 156), Naval Construction Battalion Center, Port *
*Hueneme, CA 93043-5000, by using the self-addressed Standardization *
*Document Improvement Proposal (DD Form 1426) appearing at the end of this *
*document or by letter. *
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FSC 7320

Type II Divider Head Assemblies/Capabilities

Standard 36-Part:
(36 pieces: 1-oz. up to 3-oz.)
Optional Interchangeable 18-Part:
(18 pieces: 3-oz. up to 7-oz.)
Optional Interchangeable 9-Part:
(9 pieces: 7-oz. up to 1-lb. 2-oz.)
Optional Interchangeable 6-Part:
(6 pieces: 1-lb. 2-oz. up to 1-lb. 10-oz.)

NOTE: This CID is not suitable for use as a procurement document when procuring shipboard equipment. See MIL-D-3886 for shipboard equipment.

Salient characteristics.

Types IA and IB (dough divider). Type IA shall be a 36-part dough divider machine. Type IB shall be an 18-part dough divider machine. The Types IA and IB machines shall be designed for bench mounting consisting of a base, an operating handle, a manually operated dough dividing mechanism (cutting head with stainless steel knives and pressure board), a yoke or support and a removable dough pan. The base of the Type IA and IB shall be provided with boltholes for mounting onto a stand or work bench. The overall dimensions of the Type IA or IB machine, excluding the operating handle, shall be 14 inches [356 millimeters (mm)] in length by 18 1/2 inches (470 mm) in width by 22 1/2 inches (565 mm)in height plus or minus 3 inches (76.2 mm) for each dimension.

1. Stand. When specified (see ordering data), the Type IA or IB machine shall be furnished with a stand. The stand shall be fabricated from chrome plated or stainless steel tubing and a stainless steel top plate with a thickness of not less than 0.0747 inch (1.90 mm). Four 2-inch (50.8 mm) toe locked swivel casters, suitable for food service, shall be mounted on the bottom of the stand. The stand shall be equipped with four lower leg connecting rods to assure proper rigidity.

2. Pan. The Type IA or IB machine shall be provided with a circular dough pan of one piece, deep drawn stainless steel. The pan shall be easily removable and shall have not less than one handle.

Type II (dough divider and rounding machine). The Type II machine shall be NSF listed, semi-automatic consisting of a floor mounted support or stand with integral housing, a manually operated dough divider mechanism constructed with non-corrosive components, which are NSF certified. The divider mechanism shall be a removable and interchangeable standard 36-part dividing head assembly. Removable and interchangeable divider mechanisms capable of 6, 9, or 18 part dough pieces, using the same base drive unit, shall be available as optional equipment (see ordering data). The dividing and rounding head assembly/assemblies shall be designed to be easily removed, without any special tools, for immediate cleaning. The Type II machine shall be an electric motor operated rounding mechanism (rounder plate), a yoke or support, and a removeable NSF certified plastic pallet. The dough shall be divided by a manual operation, and the rounding done by an automatic operation. The Type II machine shall also provide a function which when regulated changes the axis of the rounder plate. The handle shall be fully depressed manually to compress the dough, and the

rounding mechanism is activated by a lever for the rounding operation. The release of the rounding operation lever to the starting position shall disengage the rounding mechanism. Boltholes shall be provided at the base of the support or stand for bolting the Type II to the floor. The overall dimensions, excluding the operating handle, shall be 26-1/2 inches (673 mm) in length by 22 inches (559 mm) in depth by 59 inches (1/499 mm) in height plus or minus 2 inches (51 mm) for each dimension.

1. Rounder plate and work pallets. The Type II shall have a rounder plate, and four polycarbonate, NSF certified plastic, work pallets. The rounder plate shall be attached to and driven by an electric motor as specified herein. The Type II plastic pallets shall have recesses, of a number corresponding to divider head assembly divisions, embossed on each work pallet for forming the rolls during the rounding operation. The pallet design and recesses shall be NSF certified. Each pallet shall have one handle and shall rest in a fixed position on the rounder plate during operation. Work pallets shall be removable.

2. Electrical characteristics. Unless otherwise specified (see ordering data), the Type II machine shall be wired to be operated on a nominal 208 volts, 60 Hertz, 3-phase power source. Means shall be provided for grounding the machine. The type II machine shall be UL listed and meet all applicable UL requirements.

3. Motor. The electric motor used on the Type II machine shall be a capacitor type or split-phased type and shall conform to NEMA MG 1, BISSC No. 29 and be UL recognized. The motor shall be of sufficient horsepower and speed to be capable of dividing and rounding a pallet containing 2 pound 4 ounces of whole dough into 36 separate and equal pieces by weight +/- 5 percent at a rate of not less than 1080 pieces per hour.

4. Electrical components. Unless otherwise required (see ordering data), the Type II machines shall have a manual ON-OFF switch conveniently located, internally wired. All components, including wire, shall be UL recognized. When ordered as a single phase 120 Volt (V) machine, the machine shall be equipped with a 2-wire with ground, SJO type cord of proper size and shall have a 3 prong grounded type plug. The plug shall conform to NEMA WD1 configuration 5-15P, meeting the requirements of UL 498. The cord shall extend not less than 8 feet (2.4 meters) beyond the machine. All other machines shall be direct wired. Wiring shall be in accordance with NEMA WC5 or NEMA WC7.

Electromagnetic interference suppression. When specified (see ordering data), the type II machine shall be designed to meet the UMO5 requirements of MIL-STD-461 for Class C3, Group II equipment.
Trip lever and trip lever catch. The Type IA & B, and Type II machines shall be provided with a trip lever and trip lever catch. The trip lever shall be designed so that when engaged it shall prevent operation of the handle and release of the knives to the full cutting distance. The trip lever catch shall be designed so that when engaged it shall prevent the trip lever from being released. All mechanisms shall be located in the front of the machine for ease of operation.

Operation. The Type IA & B, and Type II machines shall be capable of operating, without a load, for not less than 25 cycles and meet the following requirements as applicable:

a. Proper operation of motor starting and stopping devices.
b. Proper operation of adjusting and operating devices.
c. Proper operation of parts.
d. No overheating of bearings.
e. No binding.

Lubrication. Unless otherwise specified (see ordering data), means for lubrication shall be in accordance with the manufacturer's standard practice. The lubricating points shall be easily visible and accessible. Where use of high-pressure lubricating equipment, 1,000 pounds force per square inch (psi) or higher, will damage grease seals or other parts, a suitable warning shall be affixed to the equipments in a conspicuous location. The unit shall be lubricated prior to delivery with type of lubricant specified in the operator's manual and grade of lubricant recommended for ambient temperature at the delivery point. The unit shall be conspicuously tagged to identify the lubricants and their temperature range.

Lubrication instruction. The machine shall have a lubrication chart indicating points requiring lubrication, and the time interval of lubrication.

Finish. Unless otherwise specified (see ordering data), the Type IA & B machines shall be finished in accordance with the manufacturer's standard practice. Type II machines shall have a finish which has been tested and certified by NSF.

Data name plates. Data name plates shall be made of minimum 20 gauge corrosion-resisting metal and attached to each item by rivets, screws or welding in such a manner as to meet the applicable National Sanitation sanitary requirements for this equipment. The plate shall contain the following information stamped, engraved or applied by photosensitive means:

National Stock Number
Procurement Instrument Identification Number
Manufacturer's Name, Address, Phone Number
Manufacturer's Model Number

Interchangeability. All machines of the same classification furnished with similar options under a specific contract shall be identical to the extent necessary to insure interchangeability of component parts, assemblies, accessories and spare parts, and shall be NSF certified.

Steel fabrication. The steel used in fabrication shall be free from kinks, sharp bends, and other conditions which would be deleterious to the finished product. Manufacturing processes shall not reduce the strength of the steel to a value less than intended by the design. Manufacturing processes shall be done neatly and accurately. All bends shall be made by controlled means to insure uniformity of size and shape.

Stainless steel. Stainless steel shall conform to the 300 series of ASTM A 167 as applicable.

Bolted connections. Boltholes shall be accurately punched or drilled and shall have the burrs removed. Washers or lockwashers shall be provided in accordance with good commercial practice, and all bolts, nuts, and screws shall be tight.

Welding. Welding procedures shall be in accordance with a nationally recognized welding code. The surface of parts to be welded shall be free from rust, scale, paint, grease, or other foreign matter. Welds shall be of sufficient size and shape to develop full strength of the parts connected by the welds. Welds shall transmit stress without permanent deformation or failure when the parts connected by the weld are subjected to proof and service loadings.

Quality Assurance Provisions.

Quality conformance tests. Unless otherwise specified in the contract or order (see ordering data), each machine offered for acceptance at one time shall receive the Operational and Performance Tests listed below, as applicable. Failure to pass these tests shall be cause for rejection of the machine.

Test methods.

Operational test (Type IA & B). The Type IA & B machines shall be operated without a load for not less than twenty-five cycles to determine compliance with the proper operation of adjusting and operating devices, operational parts, and without binding. Inability of the machine to operate as specified herein shall constitute failure of the test.

Operational test (Type II). The Type II machine shall be connected to a power supply and operated without a load for not less than twenty-five cycles to determine compliance with the proper operation of adjusting and operating devices, operational parts, presence of binding and the operation of the motor and rounding mechanism to start and stop without indication of overheating of bearings to determine compliance with the operation paragraph contained within this CID. Inability of the machine to operate as specified herein shall constitute failure of the test.

Performance test (Type IA & B). After successfully passing the operational test, the Type IA & B machines shall be subjected to the performance test. Test for the Type IA & B machines shall be as follows. The pan, containing 3 pounds [1.36 kilogram (kg)] of whole dough for Type IA, and 2 pounds 4 ounces (1.02 kg) for the Type IB machine, shall be placed in the machine. The machine shall be operated to perform the dough dividing operation on the pan of whole dough to determine that it divides into 36 separate and equal pieces for Type IA, and 18 separate and equal pieces for Type IB. The individual pieces shall not deviate by weight more than +/-5 percent. The test shall be repeated by dividing a piece of whole dough weighing 7-1/2 pounds (3.40 kg) for the Type IA machine, and 6-3/4 pounds (3.06 kg) for the Type IB machine. The weight of each piece of divided dough shall comply with the requirements specified above. Inability of the machine to divide dough into pieces, with the weight variances specified, shall constitute failure of the test.

Performance test (Type II). After successfully passing the operational test, the Type II machine shall be subjected to the performance test. The performance test for the Type II machine shall be as follows. The work pallet containing 2 pound 4 ounces (1 kg) of dough shall be placed in the machine. The machine shall be operated to perform the dough dividing and rounding operation on the pallet of dough to determine compliance with the Motor requirements. The test shall be repeated for a piece of whole dough weighing 5 pounds 10 ounces (2.55 kg). The rate of rounded dough pieces produced and weight variance of each dough piece shall be in compliance with the Motor requirements. Inability of the machine to divide dough into pieces, with the weight variances specified, shall constitute failure of the test.

Preservation, packaging, packing, labeling and marking. Unless otherwise specified in the contract or order (see ordering data), the preservation, packaging, packing, labeling and marking shall be in accordance with ASTM-D-3951.

Contractor Certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices. If certification of performance from the manufacturers test results is not sufficient, and other testing is requested, the manufacturer shall be informed of this intent at the time of bid request submittal, so the manufacturer may quote any additional charges for these procedures. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

Metric Products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of Federal Standard No. 376, and all other requirements of this Commercial Item Description are met.

If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch/pound units, a request should be made to the contracting officer to determine if the product is acceptable. The contracting officer has the option of accepting or rejecting the product.

CID based part identification number. The following part identification numbering procedure is for government purposes and does not constitute a requirement for the contractor.

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A  XXXXX - XX
*    *     *          1A - Type IA
*    *     *--------- 1B - Type IB
*    *                02 - Type II
*    *
*    *--------------- CID Number
*
*
*-------------------- Designates a CID
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Notes.

Ordering data. Acquisition documents should specify the following:

a. Title, number, and date of this document.
b. Type of dough divider/rounding machine.
c. When optional divider head assemblies for Type II machines are required.
d. When electrical characteristics are other than as specified.
e. When electromagnetic interference suppression is required.
f. When lubrication is other than as specified.
g. When finish is other than as specified.
h. When quality conformance tests are other than as specified.
i. When preservation, packaging, packing, labeling and marking is other than as specified.

ASTM Standards are available from ASTM, 1916 Race Street, Philadelphia, PA 19103.

BISSC Standards are available from the Baking Industry Sanitation Standards Committee, 111 E. Wacker Drive, Suite 600, Chicago, IL 60601.

NEMA Standards are available from the National Electrical Manufacturers Association, 2101 L Street, N.W., Washington, DC 20037.

UL Standards are available from the Underwriters Laboratories Inc., 333 Pfingsten
Road, Northbrook, IL 60062-2096.

MIL-STD-461 is available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MILITARY INTERESTS:

Custodians:

Navy - YD
Air Force - 99

Review Activities:

Navy - MC, SA
Air Force - 84, 50
DLA - GS

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FSS (FCET)

PREPARING ACTIVITY:

Navy - YD

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