

# DCM-161 MINI-TUMBLE BLAST CABINET

O. M. 14408

**DATE OF ISSUE: 04/89**

**REVISION: Rev. G, 05/18**

## **NOTICE TO PURCHASERS AND USERS OF OUR PRODUCTS AND THIS INFORMATIONAL MATERIAL**

Clemco proudly provides products for the abrasive blast industry and is confident that industry professionals will use their knowledge and expertise for the safe and efficient use of these products.

The products described in this material and the information relating to these products are intended for knowledgeable, experienced users. It is the responsibility of the user to insure that proper training of operators has been performed and a safe work environment is provided.

No representation is intended or made as to: the suitability of the products described here for any purpose or application, or to the efficiency, production rate, or useful life of these products. All estimates regarding production rates or finishes are the responsibility of the user and must be derived solely from the user's experience and expertise, not from information contained in this material.

It is possible that the products described in this material may be combined with other products by the user for purposes determined solely by the user. No representations are intended or made as to the suitability of or engineering balance of or compliance with regulations or standard practice of any such combination of products or components the user may employ.

This equipment is only one component of a cabinet blasting operation. Other products, such as air compressors, air filters and receivers, abrasives, equipment for ventilating, dehumidifying, or other equipment, even if offered by Clemco, may have been manufactured or supplied by others. The information Clemco provides is intended to support the products Clemco manufactures. Users must contact each manufacturer and supplier of products used in the blast operation for warnings, information, training, and instruction relating to the proper and safe use of their equipment.

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**1.0 INTRODUCTION**

**1.1 Scope of Manual**

1.1.1 These instructions cover setup, operation, maintenance, troubleshooting, optional accessories, and replacement parts for the DCM-161 Mini-tumble Blast Cabinet.

1.1.2 These instructions contain important information required for safe operation of the cabinet. Before using this equipment, all personnel associated with the blast cabinet operation must read this entire manual and all accessory manuals to become familiar with the operation, parts, and terminology.

**1.2 Safety Alerts**

1.2.1 Clemco uses safety alert signal words, based on ANSI Z535.4-2011, to alert the user of a potentially hazardous situation that may be encountered while operating this equipment. ANSI's definitions of the signal words are as follows:



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

**NOTICE**

Notice indicates information that is considered important, but not hazard-related, if not avoided, could result in property damage.

**CAUTION**

Caution indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**WARNING**

Warning indicates a hazardous situation that, if not avoided, could result in death or serious injury.

**! DANGER**

Danger indicates a hazardous situation that, if not avoided, will result in death or serious injury.

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### 1.4 General Description

**1.4.1** The DCM-161 tumble cabinet blasts small batches of parts using a fixed nozzle and rotating basket. Refer to Figure 1 for arrangement and callouts of primary components.

**1.4.2** The maximum capacity of the basket is 25 lbs.

**1.4.3** The cabinet requires approximately 17 cfm of compressed air at a maximum of 60 psi.

### 1.5 Theory of Operation

**1.5.1** After parts are loaded into the basket, the air supply and exhauster are turned ON, and the cabinet door is closed, the cabinet is then ready for operation by setting the timer located in the control box atop the cabinet enclosure. Turn the dial to set the blast duration between 1 minute and 60 minutes. Blasting begins once the timer is set. Air moving through the gun draws media into the blast gun mixing chamber. The media mixes with the air and is propelled out the nozzle. As the basket rotates, the parts tumble in the blast stream ensuring that all parts and surfaces are uniformly blasted. The blast media flows through the perforated drum and into the cabinet hopper for reuse. Dust and fines are drawn through the exhauster and trapped in the dust bag. Blasting automatically stops when the timed cycle is completed.

### 1.6 Dust Collection

**1.6.1** The DCM-161 dust bag is not suitable for use in applications that generate dust from lead coatings, heavy metals, or any other toxic materials.

## WARNING

**Prolonged exposure to any dust can result in serious lung disease and death. Short-term ingestion of toxic materials, such as lead dust or dust from other heavy metals and corrosives, can cause serious respiratory injury or death. This machine is not to be used in applications which generate dust from lead coatings, heavy metals or any other toxic materials. Identify all materials that are to be removed by blasting, and obtain a safety data sheet (SDS) for the blast media.**

### 1.7 Nozzle Options

**1.7.1** Ventilation requirements limit standard cabinets to No. 5 (5/16" orifice) nozzle and No. 4 (1/8" orifice) air jet. Unless otherwise specified at the time of order, cabinets are supplied with a tungsten carbide nozzle. Ceramic nozzle are available but should be limited to occasional blasting and with mild media. More durable boron carbide nozzles should be used when blasting with aggressive media such as those listed in Section 1.9.4. Nozzle options are in Section 8.4 Item 4.

### 1.8 Tumble Basket Options

**1.8.1** Standard baskets are perforated with 3/16" holes. An optional basket with 1/16" holes is offered for use with fine abrasive or applications that produce small chips or other byproducts that could plug the blast nozzle. Refer to basket and drive assembly replacement parts in Section 8.3.

### 1.9 Media

**1.9.1** The DCM-161 utilizes most common reusable media 30 mesh to 180 mesh that is specifically manufactured for dry blasting. Media finer than those recommended may carry over to the dust bag. Media coarser than those recommended may not convey through the media hose. Media life can be extended by mixing the media in the hopper after each cycle.

**1.9.2 Steel:** Steel grit 50 mesh and finer or up to S170 shot may be used.

**1.9.3** Sand and slag media are not suitable for cabinet use. Sand should NEVER be used for abrasive blasting because of the respiratory hazards associated with media containing free silica. Slags are not recommended because they rapidly break down and are not recyclable.

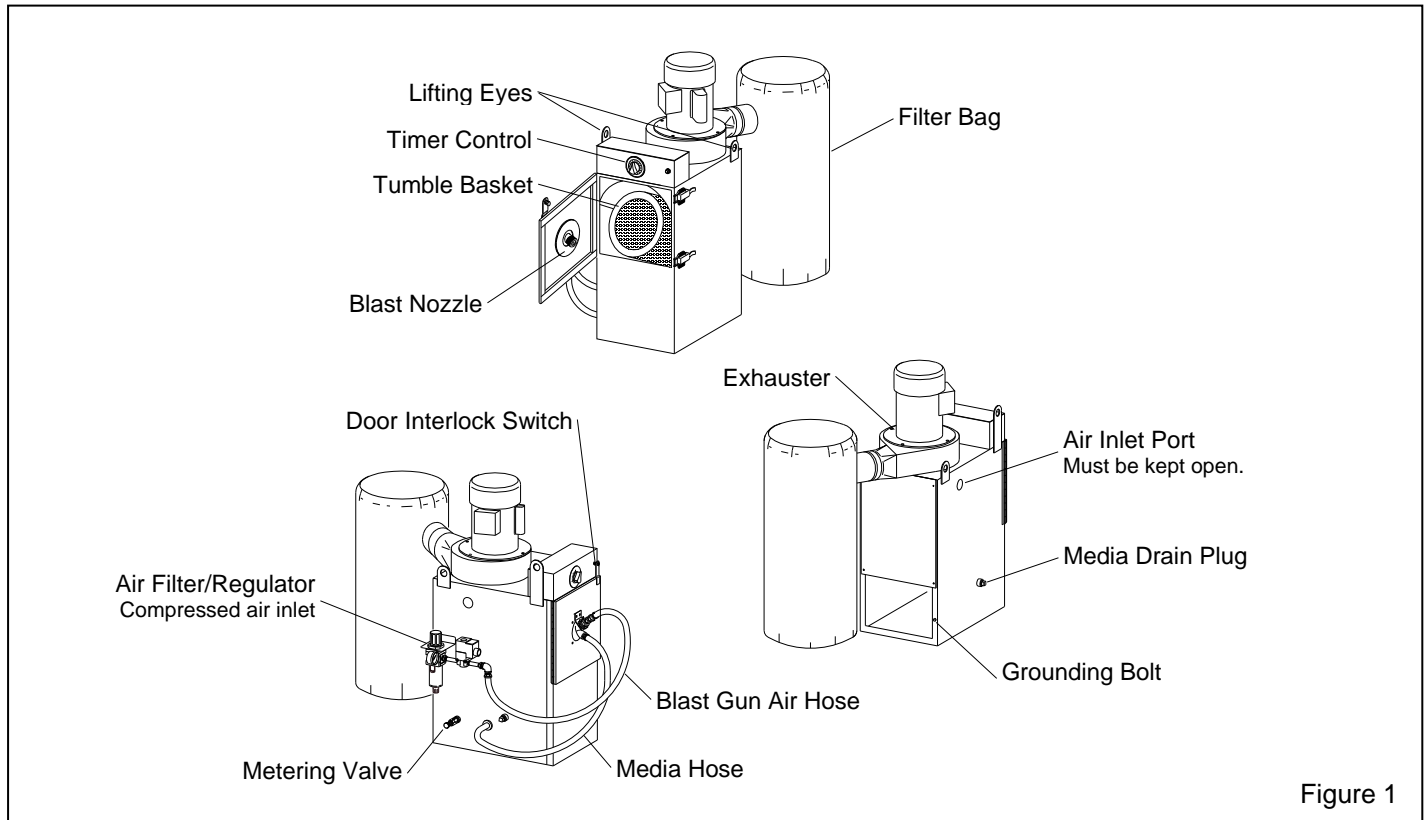


Figure 1

#### 1.9.4 Aluminum Oxide, Silicon Carbide, and Garnet:

These are the most aggressive of the commonly used media. Aggressive media may be used, but the service life of any components exposed to the media will be reduced. To avoid unscheduled downtime and maximize cabinet life, periodically inspect all parts of the cabinet, basket, nozzle, and hoses, that come in contact with the media. Boron carbide lined nozzles are recommended when using aggressive media.

**1.9.5 Glass Bead:** Most beads are treated to ensure free-flow operation even under moderately high humidity conditions. Glass beads subjected to excessive moisture may be reused after thorough drying and breaking up of any clump.

**1.9.6 Fine-Mesh Media:** In most cases, media finer than 180 will carry over to the dust bag.

**1.9.7 Lightweight Media:** Plastic and similar lightweight and/or nonaggressive media are generally not recommended for suction-style cabinets because the lower blast velocity of suction blasting combined with the softer and lighter weight media do not provide the media impact for productive blasting.

#### 1.10 Compressed Air Requirements

**1.10.1** The cabinet requires approximately 17 cfm of compressed air at 60 psi.

**1.10.2** The filter/regulator at the air-inlet connection reduces condensed water from the compressed air. Its use is especially important in areas of high humidity or when fine-mesh media are used. Moisture causes media to clot and inhibits free flow through the feed assembly. If the filter does not remove enough moisture to keep media dry and flowing, it may be necessary to install an air dryer or aftercooler in the air-supply line.

#### 1.11 Electrical Requirements

**1.11.1** The system requires 115 VAC, 1 PH, 60 Hz, with 15 amps service. A 7-foot power cord is supplied. No additional wiring is required.

### **⚠ WARNING**

**Do not use electrical adaptors that eliminate the ground prong on 115-volt plugs. Doing so can cause injury from electric shock and damage equipment.**

## 2.0 INSTALLATION

### 2.1 General Installation Notes

**2.1.1** Place the cabinet in a convenient location where compressed air and electrical service are available. Allow full access to the door and service areas. Leave enough clearance around the dust bag for it to inflate without interference.

### 2.2 Connect Compressed Air-Supply Line

## ⚠ WARNING

Failure to observe the following before connecting the equipment to the compressed air source could cause serious injury or death from the sudden release of compressed air:

- Lockout and tagout the compressed air supply.
- Bleed the compressed air-supply line.

## ⚠ WARNING

To avoid the risk of injury from compressed air, install an isolation valve and bleed-off valve where the air supply is tapped into the compressed air system. This enables depressurization of the compressed-air line before performing maintenance.

**2.2.1** Refer to Figure 2 and apply thread sealant to the male threads of an air fitting that is compatible with the air-supply hose fitting, and install it onto the 3/8" NPT air filter/regulator located on the side of the cabinet. The style of connection shown in Figure 2 is for reference only. The air line may also be hard piped.

**2.2.2** Connect a 1/2" ID or larger air line from the air source to the air fitting, as shown in Figure 2.

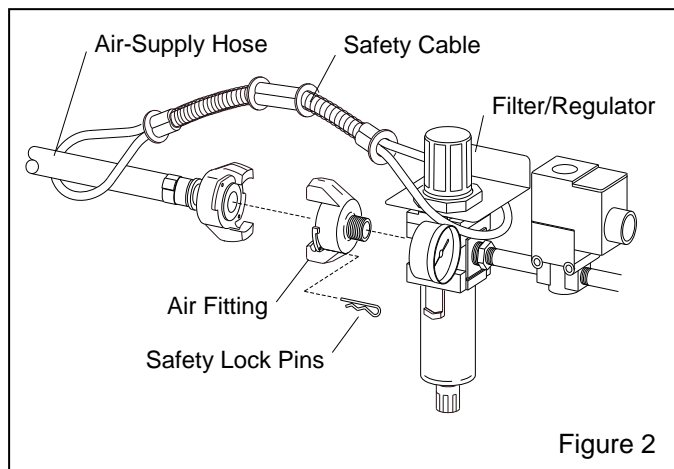


Figure 2

## ⚠ WARNING

Hose disconnection while under pressure could cause serious injury or death. Use safety lock pins or safety wire to lock twist-on couplings together and prevent accidental separation, and also use safety cables to prevent hose from whipping should separation occur. Lock pins and safety cables are listed in *Section 8.1: Optional Accessories*.

### 2.3 Ground Cabinet

**2.3.1** To prevent static electricity buildup, attach an external grounded wire from an earth ground to the grounding bolt on the rear of the cabinet.

**2.4** Refer to Figure 3 and attach the dust bag to the exhauster outlet. Secure using the clamp provided.

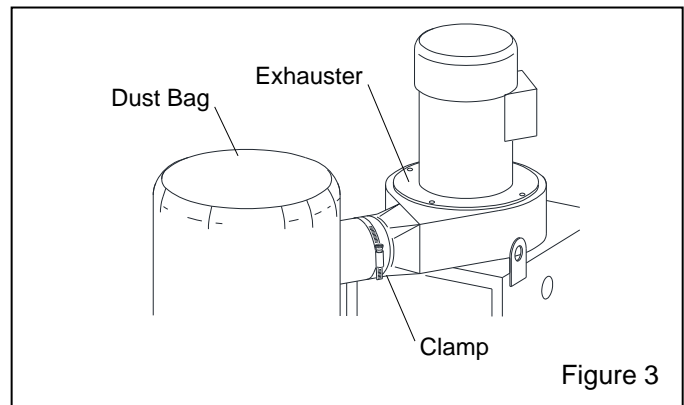


Figure 3

**2.5.** Plug the cabinet power cord into a grounded, 115-volt outlet.

## 3.0 OPERATION

### 3.1 Control Functions

**3.1.1. Timer:** Sets duration of the blast cycle up to 60 minutes. Blasting begins as soon as the timer is set. Blasting automatically stops when the timed cycle is complete.

**3.1.2 Door Interlock:** When the door is open, the blast gun is disengaged, preventing blasting.

### 3.2 Media Loading and Unloading

**3.2.1 Media Loading:** With the timer off, add clean dry media by pouring it through the front door. Maximum

media capacity is approximately 1/10 cuft. (3 quarts). Do not overfill.

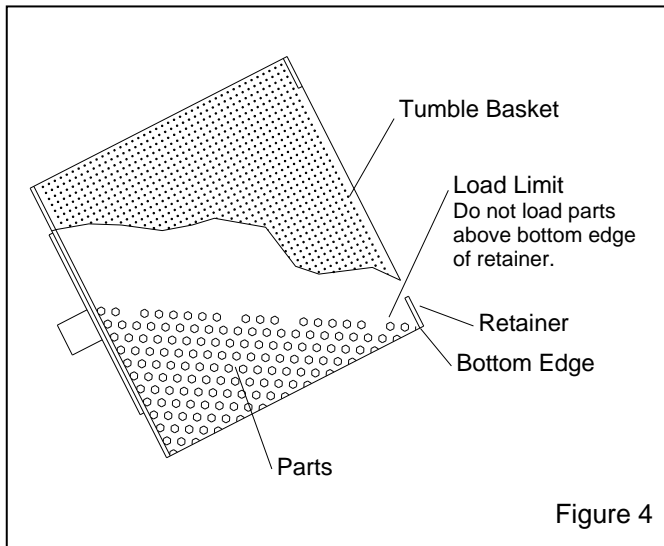
**3.2.2 Media Unloading:** To empty the cabinet of spent media, turn off the exhauster and place an empty container under the media drain plug. Unscrew the plug and tilt the cabinet as needed for media to flow into the container. If media doesn't flow, it has caked. Open the fill door and stir media until it starts to flow. Replace the plug when empty.

**3.2.3** When changing media type, use a vacuum and thoroughly purge the cabinet of media, especially when changing from coarse media to fine or when changing from hard media to soft.

### 3.3 Loading and Unloading Parts

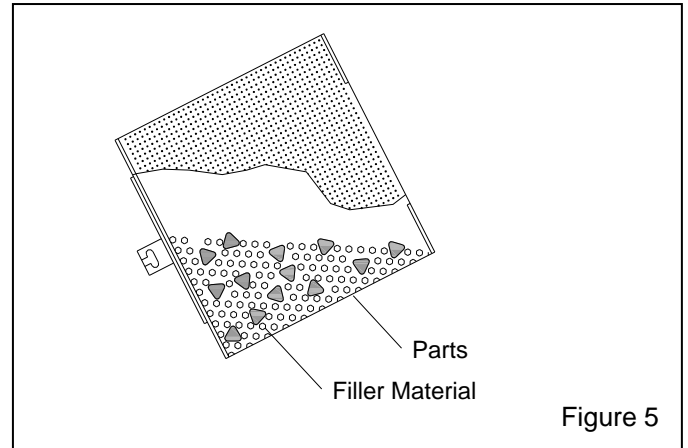
**3.3.1** Parts must be free of oil, water, grease, or other contaminants that will cause media to clump or contaminate parts.

**3.3.2** Unlatch and open the front door and load parts directly into the tumble basket. Do not overload the basket; maximum load should not exceed 25 lb or the bottom edge of the retainer, as shown in Figure 4.



**3.3.3** Do not underload with parts; underloading will result in rapid wear to the tumble basket. When blasting small loads, to prevent the blast stream from blasting the basket, add filler material (dunnage), as shown in Figure 5, such as an abrasive-resistant tumble media that is compatible with the parts being blasted.

**3.3.4** Close door and latch securely.



### 3.4 Blasting Operation

#### **⚠ WARNING**

- **Keep door closed during blasting.**
- **Stop blasting immediately if dust leaks are detected.**

**3.4.1** Slowly open the air valve on the air-supply hose to the cabinet. Check for air leaks on the initial startup, and periodically thereafter.

**3.4.2** Adjust the pressure regulator (filter/regulator) located on the side of the cabinet to the required blast pressure per Section 4.1.

**3.4.3** Load media and parts. Note load limit in Figure 4.

**3.4.4** Close the cabinet door. Make sure the door is latched securely, or door interlock system will prevent blasting.

**3.4.5** Start the blast cycle by turning the timer for the blast duration, between 1 and 60 minutes. Blasting begins as soon as the timer is set.

#### **⚠ WARNING**

**Shut down the cabinet immediately if dust discharges from the cabinet or filter bag. Make sure that the bag is clamped securely over the exhauster outlet, and that it is not worn or damaged. Prolonged breathing of any dust can result in serious lung disease. Short-term ingestion of toxic dust such as lead poses an immediate danger to health. Toxicity and health risk vary with type of media and dust generated by blasting. Identify all material being removed by blasting and obtain a safety data sheet (SDS) for the blast media.**

**3.4.6** Check media flow per Section 4.3.

### 3.5 Stop Blasting

**3.5.1** Blasting, basket rotation, and the exhauster stop when the timer cycle is completed.

**3.5.2** Open the door only enough to disengage the door interlock, and turn the timer ON to start the exhauster. Let it run for several seconds to clear airborne dust, then turn the switch OFF.

**3.5.3** Remove parts and check blast coverage.

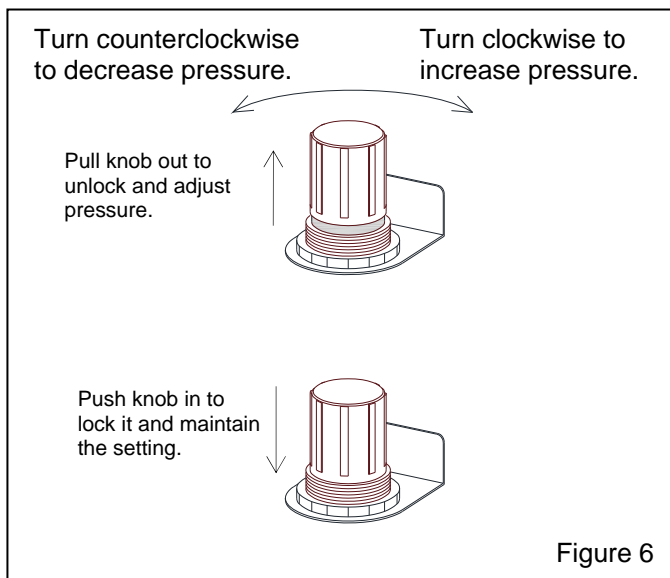
**3.5.4** When finished, shut off the air-supply valve and drain the air filter.

## 4.0 ADJUSTMENTS

### 4.1 Blasting Pressure – Figure 6

**4.1.1** The filter/regulator located on the side of the cabinet is used to adjust blasting pressure to suit the application. The maximum recommended pressure is 60 psi. Lower pressure may be used for delicate work. Higher pressure may cause dust or media to escape from the cabinet.

**4.1.2** To adjust, unlock the knob by pulling it out and turn it clockwise to increase pressure or counterclockwise to decrease pressure. Pressure will usually drop from closed-line pressure when blasting begins. Once operating pressure is set, push the knob in to lock it and maintain the setting.



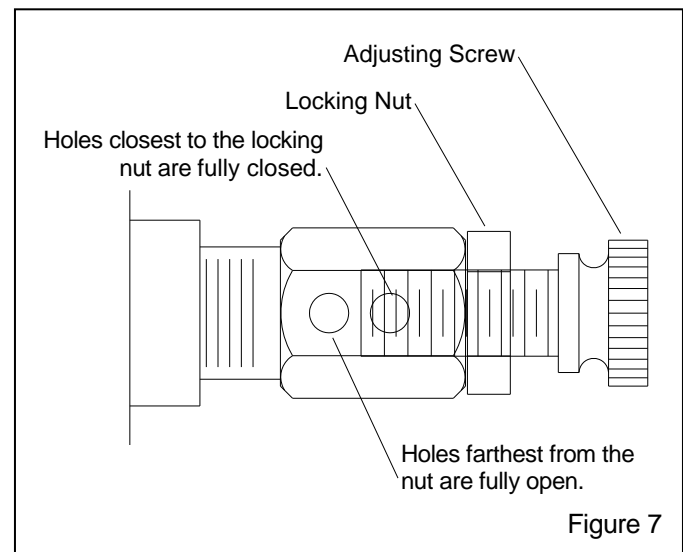
### 4.2 Timer, Blast Duration

**4.2.1** Turn the timer dial to set the timer for the duration of the blast cycle. Blasting begins when the timer is set and automatically stops when the timed cycle ends. Trial and error will determine the timer setting for the most favorable results. After the part is correctly processed, make a note of the total blast time for future runs of similar parts.

### 4.3 Media/Air Mixture – Figure 7

**4.3.1** Observe media flow through the clear media hose. Media should flow smoothly and evenly through the hose.

**4.3.2** If the air exiting the nozzle pulses or if media does not flow smoothly, the metering valve requires adjusting. To adjust, loosen the locking nut, then adjust the metering screw until the holes closest to the locking nut are closed off, and the holes farthest from the nut are fully open, as shown in Figure 7. This adjustment is a starting point.



**4.3.3** If pulsation occurs in the media hose, either media is damp and caked or not enough air is entering the media stream. While blasting, loosen the locking nut and slowly turn the adjusting screw out (counterclockwise) until the media flows smoothly. Tighten the locking nut to maintain the setting.

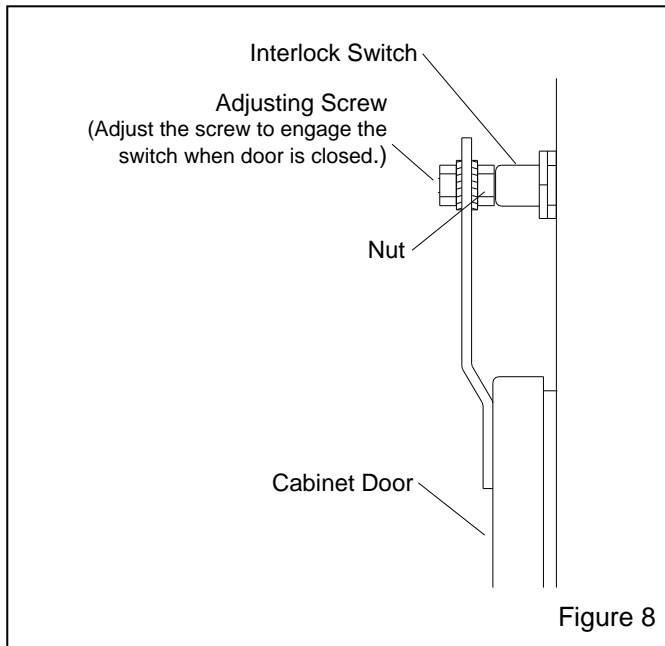
**4.3.4** If media flow is too light, decrease air in the mixture by turning the metering screw in (clockwise) and covering more of the holes so less air enters the media hose. Tighten the locking nut to maintain the setting.

#### 4.4 Door Interlock – Figure 8

### **⚠ WARNING**

**Never attempt to override the interlock system. Doing so can result in injury from unexpected blasting.**

**4.4.1** The door interlock disables the blasting control circuit when the door is open. To enable blasting, the door interlock switch must be engaged when the door is closed. The interlock is set at the factory and does not usually require field adjustment unless parts are replaced. When adjustment is required, proceed as follows:



**4.4.1.1** Close cabinet door.

**4.4.1.2** Loosen the adjusting screw nut.

**4.4.1.3** Center the adjusting screw on the switch and turn it in or out as required to engage the switch without applying excessive pressure. Tighten the adjusting screw nut to secure.

**4.4.1.4** Test the operation with the door open only enough to disengage the interlock switch, and then again with the door closed. The interlock should stop the blasting when the door is opened and permit blasting when the door is closed.

#### 5.0 PREVENTIVE MAINTENANCE

### **⚠ WARNING**

**This machine is not to be used for applications that generate dust from lead coatings, heavy metals, or any other toxic materials. Failure to wear approved respirators and eye protection when servicing dust-laden areas of the cabinet and when emptying the dust bag, can result in serious eye irritation and lung disease. Toxicity and health risk vary with type of media and dust generated by blasting. The respirator must be approved for the type of dust generated. Identify all material being removed by blasting and obtain a safety data sheet (SDS) for the blast media.**

To avoid unscheduled downtime, establish a weekly inspection schedule. Inspect all parts subjected to media contact, including the gun, nozzle, media hose, tumble basket, and all items covered in this section.

#### 5.1 Daily Maintenance

**5.1.1** Check media level and condition of media: Refill or change media as necessary.

**5.1.2** The cabinet is equipped with a manual drain air filter/regulator. Drain the filter at least once a day and more often if water is present. Moist air inhibits the flow of media; if the filter does not remove enough moisture to keep media dry and flowing, it may be necessary to install an air dryer or aftercooler in the air-supply line.

**5.1.3** The bag collects dust on its inner surface. A high dust level in the cabinet indicates a dirty bag. Empty the bag as frequently as necessary to maintain good air flow through the cabinet and before the weight of dust prevents full inflation of the bag. A zipper opening is located in the bottom of the bag for emptying.

**5.1.3.1** Periodically turn the bag inside out and vacuum the inner surface.

### **NOTICE**

**Blast media is usually nontoxic; however materials removed by the blast process may be toxic. Check with local authorities for disposal restrictions.**



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## 5.2 Weekly Maintenance

**5.2.1** Inspect nozzles and gun bodies for wear as noted in Section 6.1, Replace nozzle when orifice diameter is worn 1/16" larger than original size or when suction diminishes noticeably.

**5.2.2** During operation, inspect cabinet door seals for media leaks.

**5.2.3** Inspect the media hose for thin spots by pinching it every 6 to 12 inches. Replace the hose when it becomes soft.

## 5.3 Monthly Maintenance

**5.3.1** Inspect the basket's bottom liner for wear. Replace the liner per Section 6.2 as soon as the liner is worn thin and before wearing through to the bottom plate.

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## 6.0 SERVICE MAINTENANCE

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### WARNING

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**This machine is not to be used for applications that generate dust from lead coatings, heavy metals, or any other toxic materials. Failure to wear approved respirators and eye protection when servicing dust-laden areas of the cabinet and when emptying the dust container can result in serious eye irritation and lung disease. Toxicity and health risk vary with type of media and dust generated by blasting. The respirator must be approved for the type of dust generated. Identify all material being removed by blasting and obtain a safety data sheet (SDS) for the blast media.**

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### 6.1 Gun and Nozzle Assembly

**6.1.1** Open the cabinet door, unscrew the holding nut from the gun end, and pull the nozzle from the gun.

**6.1.2** Inspect the gun body, nozzle, orifice, and 1/4" NPT nipple for wear. Replace any that are worn or damaged. Replace the nozzle when its orifice diameter has increased to 3/8" (increased by 1/16" larger than when new) or when suction diminishes noticeably.

**6.1.3** When installing the nozzle, insert the tapered end into the gun placing the tapered end toward the jet. Screw the holding nut onto the gun.

### 6.2 Tumble Basket

**6.2.1** Periodically inspect the basket and bottom liner for wear.

**6.2.2** The bottom liner is held to the bottom of the basket by the two support ribs; remove the liner by peeling it from the bottom and from under the ribs.

**6.2.3** Replace the liner in reverse order, tucking the edge under the support ribs.

**6.2.4** Replace the basket as soon as it is worn thin.

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## 7.0 TROUBLESHOOTING

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### WARNING

To avoid serious injury from the sudden release of trapped compressed air, observe the following when troubleshooting:

- Turn off the air, and lockout and tagout the air supply.
  - Bleed all compressed air-supply lines.
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#### 7.1 Dust Leaking from the Cabinet Enclosure

7.1.1 Dirty filter bag reducing air flow through cabinet. Empty the dust bag regularly. Refer to Section 5.1.

7.1.2 Damaged door gaskets. Inspect and replace damaged gaskets.

7.1.3 Blast pressure too high. Maximum blast pressure is 60 psi.

7.1.4 Exhauster's paddle wheel worn. Check wheel for wear.

#### 7.2 Abnormally High Media Consumption

7.2.1 Media may be too fine or worn-out. Refer to Section 1.9 for recommended media size.

7.2.2 Using friable media that rapidly breaks down.

7.2.3 Nozzle pressure too high for the media, causing media to break down.

#### 7.3 Reduction in Blast Cleaning Rate

7.3.1 Low media level reducing media flow. Check media level; add or replace media as needed.

7.3.2 Incorrect metering valve adjustment. Adjust per Section 4.3.

7.3.3 Reduced air pressure, which could be caused by a malfunctioning pressure regulator, a dirty filter element in the air filter, a partially closed air valve, a leaking air line, or other air tools in use.

7.3.4 Blockage in media hose or gun. Refer to Section 7.4.

7.3.5 Worn gun parts such as nozzle or air jet. Inspect and replace all worn parts.

7.3.6 Worn media hose. Check hose for leaks and soft spots. Replace worn or damaged hose.

7.3.7 Moist media. Frequent bridges or blockage in the area of the metering valve can be caused by moisture. Refer to Section 7.5.

#### 7.4 Plugged Nozzle

7.4.1 Media mixture too rich. Adjust media/air mixture per Section 4.3.

7.4.2 Remove nozzle and check for blockage from foreign material. If the standard tumble basket allows large particles to pass and block the nozzle, use the optional basket with 1/16" diameter holes listed in *Section 8.1: Optional Accessories*.

#### 7.5 Media Bridging

7.5.1 Frequent bridging or blockage in the media-metering valve can be caused by damp media. Media becomes damp by blasting parts that are slightly oily, from moisture in the compressed-air line, or from absorption from ambient air.

7.5.2 To avoid contaminating media from the workpiece, all parts put into the cabinet should be clean and dry. If parts are oily or greasy, degrease and dry them prior to blasting.

7.5.3 Moist compressed air may be due to a faulty compressor that overheats, or pumps oil or moisture into the air line; too long of an air line permitting moisture to condense on the inside, and from high humidity. Drain the air filter and receiver tank regularly. If the problem persists, it may be necessary to change media more often, or install an aftercooler or air dryer.

7.5.4 Absorption. Some media tends to absorb moisture from the air, especially fine-mesh media in high-humidity areas. Empty the media and store it in an airtight container when cabinet is not in use.

7.5.5 Using lightweight or low-density media as noted in Section 1.9.7.

## 7.6 Neither Media nor Air Comes Out the Nozzle During the Blast Cycle.

**7.6.1** Door interlocks not engaging. Check adjustment per Section 4.4.

**7.6.2** Pressure regulator may be turned down or off. Check pressure on regulator gauge.

**7.6.3** Make sure that the air compressor is on and air-supply valves are open.

**7.6.4** Plugged nozzle. Refer to Section 7.4.

**7.6.5** Timer or inlet-solenoid valve malfunction. Inspect by qualified electrician.

## 7.7 Blockage in Media Hose

**7.7.1** Media obstruction. This is usually caused when the media mixture is too rich. Adjust media/air mixture per Section 4.3.

**7.7.2** Wet or damp media. See Section 7.5.

## 7.8 Poor Suction in Media Hose

**7.8.1** Nozzle is worn. Replace if worn 1/16" or more.

**7.8.2** Blockage in media hose or nozzle. Refer to Sections 7.4 and 7.7.

## 7.9 Blowback Through Media Hose

**7.9.1** Blockage in nozzle. Remove the nozzle and check blockage.

**7.9.2** Air jet washer (Figure 11 item 5) not tightly sealed against air jet. Tighten the bushing into the gun body.

**7.9.3** Air pressure too high. Reduce pressure to 60 psi maximum.

## 7.10 Air Only (no media) from Nozzle

**7.10.1** Nozzle pressure too high for the media, causing media to break down.

**7.10.2** Reduced air pressure decreases vacuum in media hose, which could be caused by a malfunctioning pressure regulator, a dirty filter element in the air filter, a partially closed air valve, a leaking air line, other air tools in use, or regulator pressure set too low.

**7.10.3** Blockage in media hose or gun. Refer to Sections 7.4 and 7.7.

**7.10.4** Worn gun parts such as nozzle or air jet. Inspect and replace all worn parts.

**7.10.5** Worn media hose. Check hose for leaks and soft spots. Replace worn or damaged hose.

**7.10.6** Moist media. Frequent bridges or blockage in the area of the metering valve can be caused by moisture. Refer to Section 7.6.

## 7.11 Media Surge

**7.11.1** Heavy media flow. Adjust per Section 4.3.

## 7.12 Static Shocks

**7.12.1** Cabinet not grounded. Abrasive blasting generates static electricity. The cabinet must be grounded to prevent static buildup. Refer to Section 2.3.

## 7.13 Dust Leaking from Dust Bag

**7.13.1** Check for damaged or loose fitting dust bag.

## 8.0 ACCESSORIES AND REPLACEMENT PARTS

(-) DCM-161 Mini Tumble Blast Cabinet .....12548

### 8.1 Optional Accessories

Tumble basket w/ 1/16" holes .....18254

Lock pins (pkg. of 25)

for twist-on air hose couplings .....11203

Safety cable, for 1/2" to 1-1/4" OD hose .....15012

8.2 Cabinet and Exhauster Assembly – Figure 9

Item	Description	Stock No.
1.	Gasket, door, 5/8" x 1-1/4" adhesive backed 4-feet required	27464
2.	Latch, spring, each	12263
3.	Motor, 1/2-HP 115-VAC	12308
4.	Paddle wheel, 100 cfm	12339
5.	Housing, 100 cfm exhauster	12269
6.	Gasket, 5/16" x 1" adhesive backed specify feet required	00187
7.	Clamp, 4"	11577

8.	Dust bag 12" x 28"	11500
9.	Switch, push button (door interlock)	12119
10.	Dust seal, push button switch	25872
11.	Timer, 60 min.	12180
12.	Gasket, gun mount back plate	11782
13.	Plate, gun mount back	12811
14.	Screw, 1/4" NC x 1" hex head cap	03053
15.	Nut, 1/4" NC hex	03111
16.	Washer, 1/4" lock	03117
17.	Plate, motor mount	12001
18.	Connector, strain relief, aluminum	11629
19.	Strain relief, Nylon snap-in	13936
20.	Cord, 120 volt, 8-ft. with plug	11669

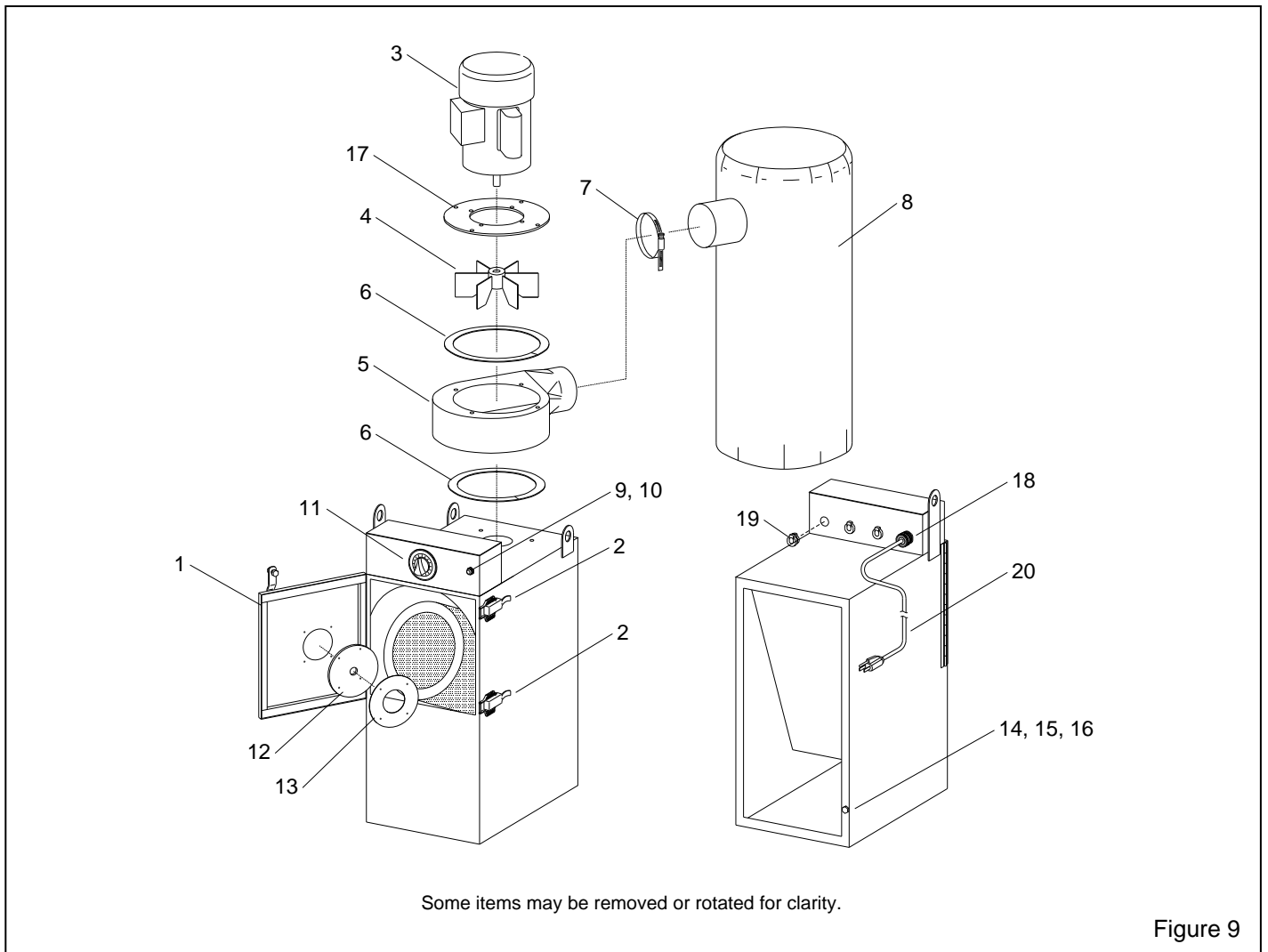
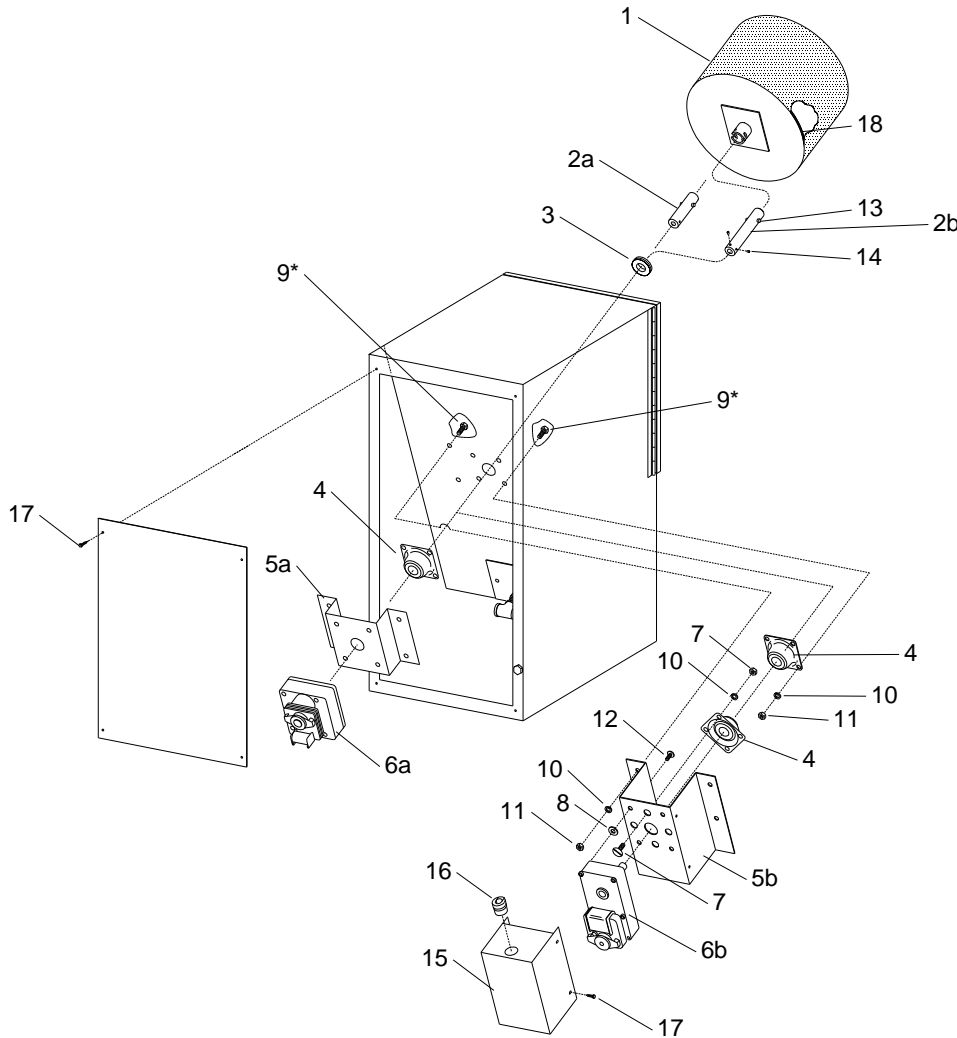


Figure 9

8.3 Basket and Drive Assembly – Figure 10

Item	Description	Stock No.
1.	Basket assembly, includes item 18 Standard, with 3/16" diameter holes .....12230 Optional, with 1/16" diameter holes.....18254	
2.	Shaft, basket drive w/ roll pin & set screws a) 3-7/8-inch long (prior to April 2011) .....13677 b) 5-5/8-inch long (effective April 2011) ...25732	
3.	Grommet, rubber .....11798	
4.	Bearing, 3/4" bore, each.....11521	
5.	Bracket, drive motor mount a) 2" deep w/4 holes, (prior to April 2011) .12812 b) 4" deep w/8 holes (effect. April 2011) ...25842	

6.	Motor, speed reduced, a) 5/16" dia. shaft (prior to April 2011) .....11905 b) 3/8" dia. shaft, (effective April 2011) .....25864	
7.	Bolt and Nut, 1/4" NC x 3/4" elevator .....03119	
8.	Washer, #10 flat (between motor and Brkt)...03303	
9.	Cap screw, 1/4" NC x 1" .....03053	
10.	Washer 1/4" lock .....03117	
11.	Nut, 1/4" NC hex.....03111	
12.	Screw, #10 x 1/2" truss .....12062	
13.	Roll pin, 1/4" x 1" .....12815	
14.	Screw, 1/4" NC x 3/16" set, each (2-Req.) ...25871	
15.	Cover, motor .....25879	
16.	Connector, strain relief (power cord) .....13936	
17.	Screw, 10 x 3/4" self-tap .....12722	
18.	Liner, 1/4" urethane bottom .....28158	



\* All of Item 9 are installed from inside the cabinet.

Figure 10

**8.4 Gun, Media Feed and Plumbing Assembly**  
**Figure 11**

Item	Description	Stock No.
1.	Nut, nozzle-holding .....	11914
2.	Body, gun .....	12267
3.	Air jet No. 4 .....	11951
4.	Nozzle ceramic No. 5 .....	11930
	tungsten carbide, No. 5 (standard) .....	13118
	boron carbide, No. 5 .....	11935
5.	Washer .....	04396
6.	Nut, 3/4" lock .....	12807
7.	Bushing, 3/4" x 3/8" .....	12748
8.	Adaptor, 3/8" male NPT x 1/2" male flare ....	11726
9.	Fitting, hose, 1/2" barb x 1/2" fem. swivel ....	15002
10.	Hose, 1/2" clear media, specify ft. required .	12476

11.	Bracket, gun mount .....	12806
12.	Solenoid, 1/4" 3-way .....	12199
13.	Filter/regulator w/gauge, 3/8" NPT .....	11690
14.	Gauge, 1/8" cbm (replacement).....	01908
15.	Fitting, hose, 3/8" NPT x 1/2" barb .....	06369
16.	Hose, 1/2" air, 4-ft. required .....	12472
17.	Muffler, 1/4" bronze .....	03988
18.	Metering valve stem assembly .....	23889
19.	Grommet, 3/4" ID .....	11798
20.	Gasket, 5/32" x 3/4" adhesive backed 1-foot required .....	00192
21.	Plate, sump adaptor .....	25877
22.	Screw, 10 x 3/4" self-tap .....	12722
23.	Bushing, 3/8" NPT x 1/4" NPT .....	12818
24.	Nipple, 1/4" NPT x 1-1/2" galv. ....	11911
25.	Screw, #10 x 1/2" truss .....	12062
26.	Nut, 10-32 lock .....	12731

