

LEE

LEE PRECISION, INC.

Auto-Drum Powder Measure

90811

Progressive Press Configuration



AP1646
Hopper & Cover

FP2112
8-32 x 3/8 Phillips

Clamp Knob
AM3041F

O-ring
SD2153

FP3025
8-32 x 7/8 HEX HD BOLT

Connecting Rod

AM3041H
Latch lever

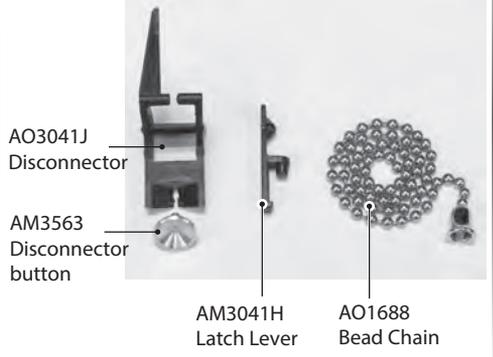
AM3041J
Disconnector

AM3041B
Slider

FP2111
6-32 x .25 Pan Head

AO1688
Bead Chain

Disconnector Parts Bag



AO3041J
Disconnector

AM3563
Disconnector
button

AM3041H
Latch Lever

AO1688
Bead Chain

POWDER MEASURE ACCESSORIES

Quick Change Drum Set

Features four precision molded nylon drums: (2) small, (2) large drums



90453

Charging Die Kit

Includes short and long charging dies for bottleneck cases



90995

Powder Measure Riser

Raises powder measure to clear other brands of dies when used in a multi-station tool head, like our Turret Press.



90041

AM3866

Thanks for purchasing the Auto-Drum Powder Measure. This is an automatic case actuated drum powder measure that includes a double charge disconnecter that reduces the likelihood of double charging case on progressive presses. The Auto-Drum includes two infinitely adjustable drums. These will accurately and reliably drop charges from 1 to 80 grains of powder. Machined body with labyrinth groove mates to the precision molded nylon drums, providing a leak free fit with the finest powder. An elastomer wiper inside the body of the measure prevents powder shearing and works great with difficult metering extruded powders.

The hopper incorporates an on/off valve making powder changeover fast and convenient.

LEE *Guarantee*

LEE RELOADING PRODUCTS are guaranteed not to wear out or break from normal use for two full years or they will be repaired or replaced at no charge if returned to the factory or if you supply a photo to www.leeprecision.com/contact-us

Any Lee product of current manufacture, regardless of age or condition, will be reconditioned to new with a new guarantee, if returned to the factory with payment equal to one half the current retail price plus shipping.

CAUTION

Ammunition reloading can be dangerous if done improperly and should not be attempted by persons not willing and able to read and follow instructions exactly. Children should not be permitted to reload ammunition without strict parental supervision. Always wear safety glasses when reloading and shooting. Ammunition loaded with these tools and data should only be used in modern guns in good condition. We do not accept responsibility for ammunition loaded with these tools or data as we have no control over the manufacture and storage of components or the loading procedure and techniques. Primers and gun powders, like gasoline and matches, can be dangerous if improperly handled or misused.

Do not use black powder in this powder measure, as it can explode in bulk. Selecting and charging powder is the most important thing you can do for both the safety and accuracy for your reloads. Be absolutely certain you have the correct type and amount of powder before you attempt to reload any cartridge.

WARNING

Always make an uninterrupted up and down stroke when expanding or charging the case. If you become distracted and reverse direction, a double charge could result.

1 Select Appropriate Drum

The Auto-Drum ships with the small drum installed. Reference Lee Reloading Dies instruction sheet or Modern Reloading volume cc column to determine the cc's to dispense.

NOTE: The large drum can be converted to low capacity drum. Remove the plug from the drum and install into the metering rod. This is a semi permanent change because it is a press fit into the metering rod. Slide it into the metering rod, and push firmly home with finger. Once installed, the minimum capacity is reduced to about .25cc's, suitable for the tiniest cartridges.

Small Drum

Maximum capacity is 2.8cc.



Large Drum

Minimum capacity is 2.27cc and maximum capacity is 6.49 cc.



2 Use Lee Dipper or Safety Scale

You can quickly preset the approximate charge using a Lee dipper or a weighed charge. Then pour charge into metering chamber.



3 Adjust Drum

Insert adjustment key and rotate key until powder is flush with the face of the drum.

Return the powder to container.



Adjusting Charge using Adjustment Key

Each of the Quick Change Drums includes a key that you insert into the adjusting screw to make your adjustment. Each facet of the 10 sided key represents .01cc or about a 1/10 grain for the average powder. Light, fluffy powders are going to be less and more dense powders are going to be slightly more. On average, it is 1/10 of a grain per facet.

4 Install Down-Stroke Verification Device

See next page for details.

Nice Feature

You can use a #2 pencil and mark the type of powder and the charge on the flat surface. After you change, simply erase and write something else.



4 Install Down-Stroke Verification Device

Always use the down-stroke verification device when loading light target loads or fast burning powders that occupy less than two-thirds of the case capacity.



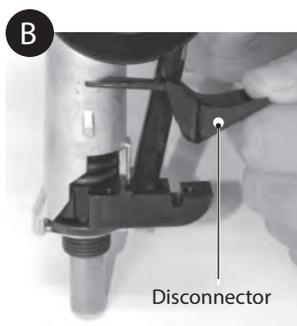
Disconnector and latch lever installed.

Single Stage / Turret Press = The down-stroke verification device allows only one activation of the powder measure after the disconnector is pushed. See page 4 for setup instructions.

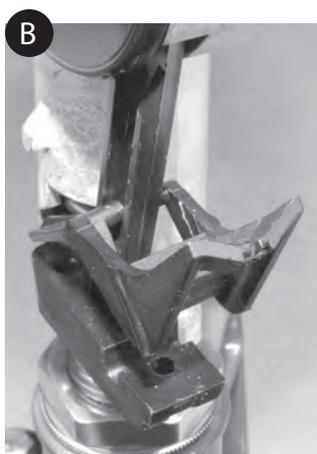
Progressive Press = The disconnector can be automatically activated at the bottom of the stroke by attaching the included bead chain. Once the case reaches the bottom of the stroke most progressives automatically move the case to the next position preventing a double charge. See page 5 for setup.



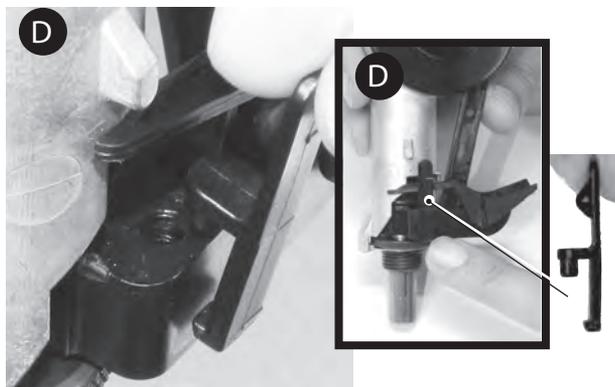
A: Unscrew the 6-32 x .25 Phillips screw.



B: Install disconnector by sliding on to connecting rod.

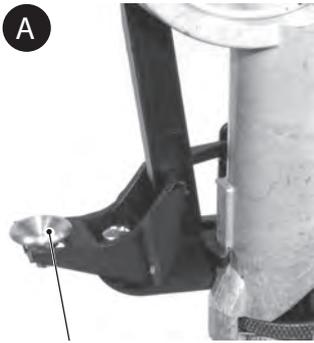


C: Re-install 6-32 Phillips screw to secure disconnector.

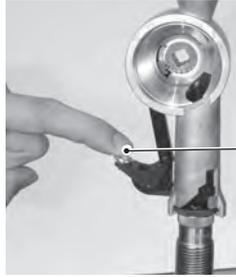


D: Clip on latch lever to slider drop tube. Install the pin in the screw hole

5 Install Auto-Drum to Single Stage Press or Turret Press

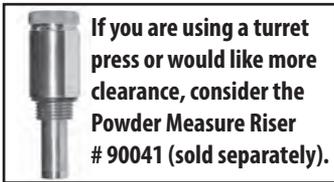


Install # AM3563 disconnecter button



REMEMBER:

A case must be present in the shell holder and the **disconnecter button** must be depressed to activate the powder measure and charge case.



If you are using a turret press or would like more clearance, consider the **Powder Measure Riser # 90041 (sold separately).**

ATTENTION

Before you install powder measure, be sure your expanding plug/drop tube and powder measure riser have no oil residue. Push a clean tissue through to remove any residual oil.

B Pistol

Screw powder measure into Powder Through Expanding Die. Orientate the powder measure to a convenient position, and secure the knurled swivel adapter.

B Rifle

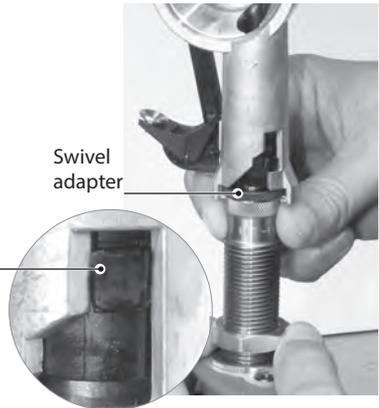
Charging Die Selection:

Short (# 90668) .86" to 1.76" long

Long (# 90194) 1.76" to 2.62" long

Thread charging die on to Auto-Drum knurled adapter completely. Thread lock ring up towards the top of the die.

Dispense position
Note: slider drop tube should not make contact with top of slot



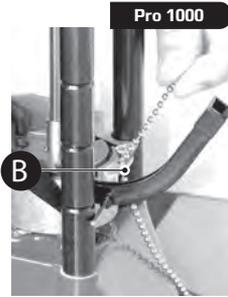
Insert case into shell holder and raise ram. Thread powder measure and charging die into the press until you feel it stop turning, turn the powder measure in further until the slider drop tube raises to the dispense position. Finger tighten lock ring. If the powder measure is not in a convenient position, loosen the swivel adapter and rotate.

5 Install Auto-Drum to Progressive Press

On progressive presses, the disconnecter can be automatically activated at the bottom of the stroke by attaching the included bead chain. Once the case reaches the bottom of the stroke most progressives automatically move the case to the next position preventing a double charge.

A Install Auto-Drum into the Powder Through Expanding Die. Orientate the Powder Measure so the disconnecter aligns with the shell plate carrier hole and tighten the knurled adapter.

B Attach end bell to end of bead chain and thread chain up through the shell plate carrier hole. Clip into disconnecter so that it is activated at the bottom of the press stroke.



C Raise carrier to the mid stroke position, snap bead chain into the disconnecter slot.



Disconnecter slot



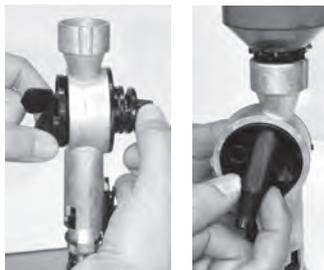
D Lower the ram while lifting the loose end of the bead chain. The beads will snap through the disconnecter and rest in the proper position.



6 Install Drum into Measure to Drop Charge & Verify

Install the drum with the metering rod facing down towards drop tube, aligned with the hopper on the Auto-Drum measure.

Tighten the drum screw to adequately to prevent powder leakage.



7 Dispense and Weigh a Charge

Insert case into shell holder/shell plate, verify hopper is turned on by turning counterclockwise, if you have the disconnecter installed, depress the disconnecter button, raise the ram and dispense a charge.

Remove charged case, empty charge on to the scale pan to determine the weight. If charge is light or heavy, see next step for adjusting the drum.



CAUTION

Be certain you have the correct type and amount of powder.



8 Adjust Charge

Charge is Light

Each key facet is about 1/10 of a grain. For example, if you are 3/10 of a grain light, rotate key counterclockwise 3 key facets to increase the charge. This will back out the metering rod, increasing the chamber size to drop more powder.

Charge is Heavy

If charge is heavy, rotate the key clockwise to decrease the charge.

Large Capacity Quick Change Drums

NOTE: when you dispense large charges, allow enough time for metering drum to empty. Cartridges like the 300 Win Mag can take up to 3 seconds to fill.

Rule of thumb: allow 1 second per cc for charging and dispensing the powder charge.



9 Remove the Key

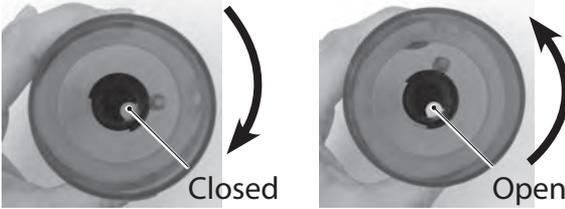
Continue to dump charges and verify. Once it's set to your desired charge or slightly less, remove the key from the metering rod and place back into drums storage bracket.



Helpful Tips

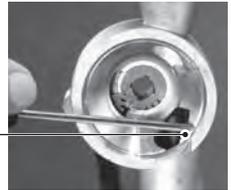
Change Drum Size or Powder Type

Rotate clockwise to close the valve. Rotate counterclockwise to open valve.

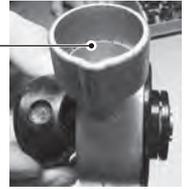


After removing the hopper, there will be some residual powder inside the powder measure where the hopper installs and where the drum installs.

To prevent cross contamination across powder types, you want to make sure this residual powder is removed. The powder measure incorporates a no leak groove that will accumulate fine grain powders, make sure that is cleaned as well. Leave the graphite that is built up on the surface of the drum and inside the measure, this acts as a lubricant.



No leak groove



Remove residual build up

Troubleshooting

If you are experiencing leaking powder

Remove the drum, clean any residual powder off drum and inside casting. Re-install and tighten clamp knob so that there is no clearance between the drum and the die cast body. (**Hint:** use a strip of paper as a feeler gage)

Inconsistent Powder Charges

On large charges, you may not be allowing enough time for the drum to empty. Pause at the top of the press stroke. Allow about 1 second for every 10 grains of powder.

The powder measure hasn't been conditioned adequately. Run a hopper full of powder through the measure to coat surfaces with powder or dust the metering surfaces with powdered graphite.

Check powder through expanding plug, drop tube and Powder Measure riser for oil residue. Push a clean tissue through to remove any residual oil.

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