

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

**LEE**  
**MICROMETER**  
**ADJUSTABLE CHARGE BAR**  
 LEE PRECISION, INC.



AD2537

## Reading the Micrometer

The charge bar is calibrated in cubic centimeters. Don't worry if you hate the metric system; this is simply a volume measurement that is convenient to work with. If you prefer, think of them as cubic powder units.

On the bar body, you will see lines indicating .2 through 1.6 cc in 1/10 (.1) cc increments. The micrometer thimble has 10 graduations, each being 1/100 (.01) of a cc. Therefore, it takes one revolution of the micrometer thimble to move the slide one increment or 1/10 (.1) cc, ten turns for 1 cc.

## Setting the Micrometer

Multiply the desired grain charge by the volume of one grain (VMD - see powder chart) of the powder you are using. The answer is in cubic centimeters and this is the setting for your measure.

Example: Desired charge is 5.7 grains of HERCULES BULLSEYE. Check VMD of Bullseye - it equals .1064

	VMD	GRAINS	CC	CC setting	
Then	.1064	x 5.7	= .6064	=	<b>.61</b> (rounded off) See illustration at right

Turn the micrometer thimble until the slide reaches the .6 cc line; continue to rotate the micrometer thimble until the 1 graduation appears on the thimble.

Now weigh your charge and you'll be very close to the correct charge.

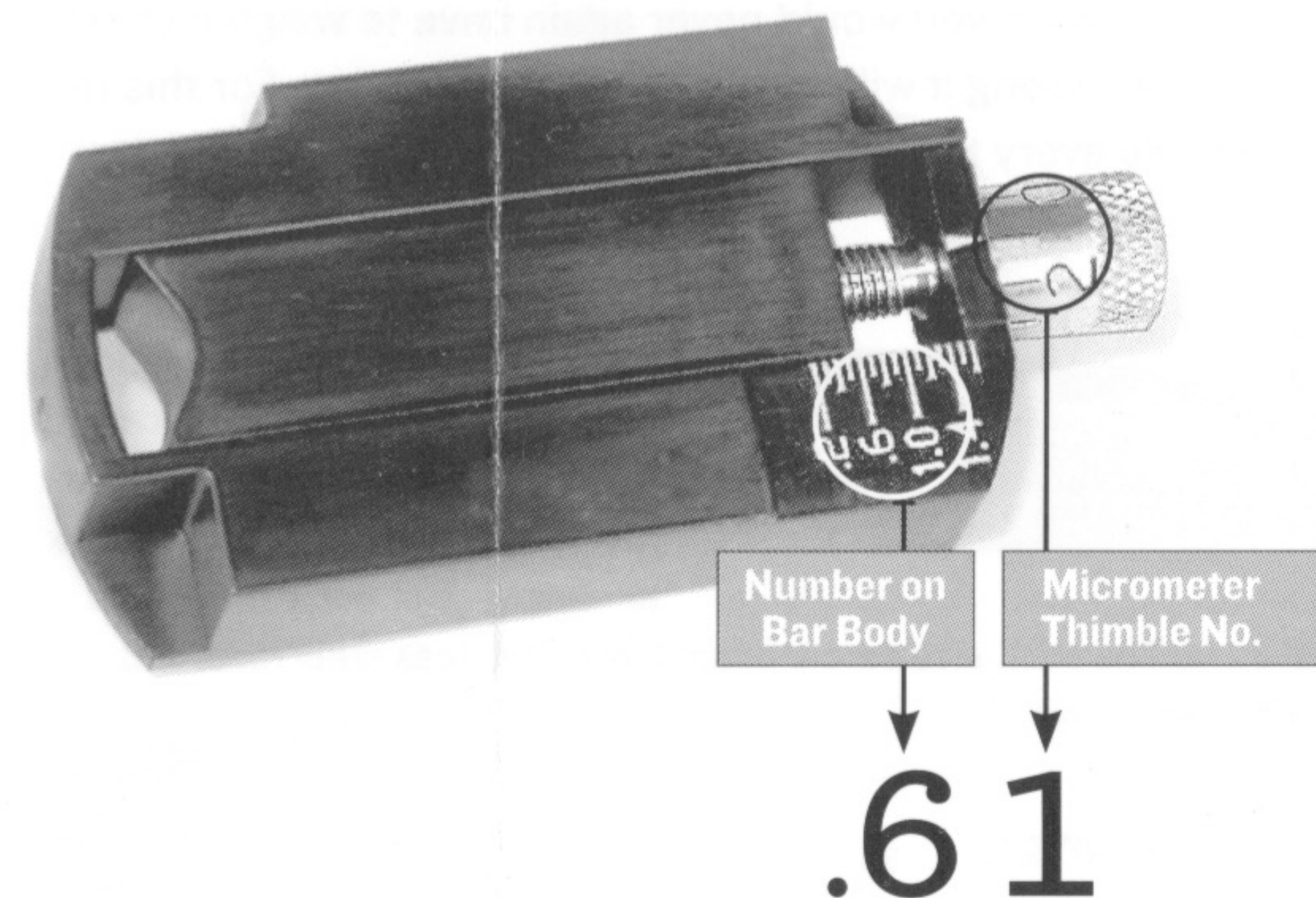
Likely, it won't be exact as powder manufacturers have a 16% lot-to-lot density tolerance.

## WARNING

- ▶ Coarse flake powders like Red Dot and Green Dot can give erratic charges when the charge bar is set smaller than .4cc.
- ▶ The charge bar is not adjustable to the full range of the graduations; i.e., it cannot be set at .2cc.
- ▶ Do not reduce the micrometer setting with powder in the measure.
- ▶ Do not attempt to disassemble the charge bar or reduce the micrometer thimble friction.

## 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.



# LEE

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## Volume Measure Density (VMD) Volume of 1 Grain of Powder

This is a term we use to describe the average volume of one grain of a specific powder when metered by the average reloader.

The chart, at right, is that part of a cubic centimeter that needed to hold one grain of the powder specified. Cubic centimeter was selected as a standard not only because that is what the powder companies use, but a cubic inch is a comparatively large unit. To obtain the same degree of accuracy, it would be necessary to carry the number out two extra places.

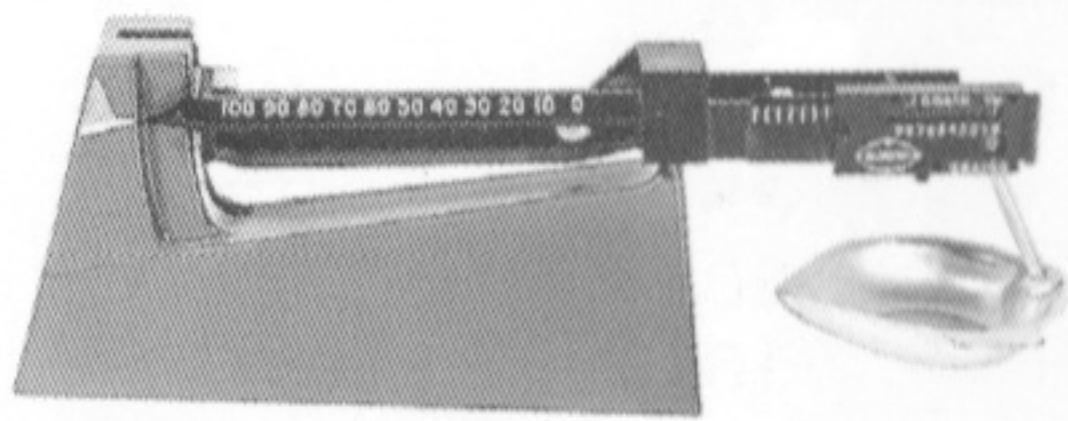
To find the volume needed for any charge, simply multiply the charge in grains by the number behind the powder you are using. It is then easy to set your measure to that number.

## Calibrate Your Powder

This is useful for new powders that are not listed on our chart, or for the person who takes a more scientific approach to reloading. It is more likely you will achieve your desired charge on the first setting if you calculate your powder's actual VMD. To find the exact VMD, set your charge bar to 1.00 cc. Weigh a sample of your powder. Divide the micrometer setting by this weight. Mark this VMD on the powder container and you will have it for future reference. It is best to average several sample weights.

$$\frac{\text{Micrometer setting}}{\text{Average Grain Weight}} = \text{VMD}$$

In a perfect world you would never again have to weigh a charge for this container of powder. However, if anything can go wrong it will at the worst possible time. For this reason, we strongly urge you to check your charge with a scale every time you reset your measure.



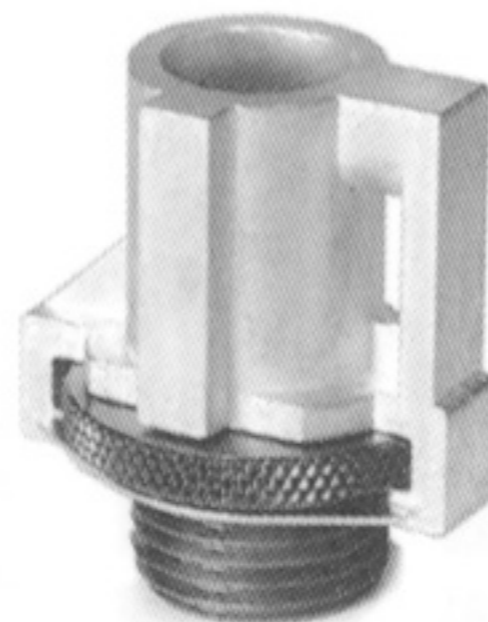
### LEE SAFETY POWDER SCALE 90681

It is the easiest to use, most accurate and sensitive powder scale. Made exclusively to weigh gunpowder. The Lee Safety Scale has magnetic damping and an approach-to-weight lifter enclosed within its heavy

metal base. The exclusive safety beam has a stainless steel razor edge for maximum sensitivity.

### SWIVEL ADAPTER 90477

Allows easy attachment and precise measure alignment



### AUTO DISK PULL BACK LEVER 90479

Pullback lever for progressive reloading. Eliminates the possibility of powder binding, while reducing the chance of missed double charges caused by operator error.

