



Redding Reloading Equipment Cortland, NY 13045

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Competition Model BR-30 Powder Measure

Congratulations! You have just purchased one of the finest powder measures available to the reloader and competition shooter. With proper care you will receive many years of service and satisfaction. To be sure that you get the most from your new Model BR-30 Powder Measure, please take a few minutes to read the following instructions.

Introduction

The Redding Competition Model BR-30 Powder Measure was designed for large capacity handgun and small to medium capacity rifle cartridges specifically for handgun silhouette and bench rest competition.

In outward appearance it is very similar to other Redding powder measures. However, there are some very important differences and features that you should be aware of.

Medium Capacity

The special size and shape of the drum and micrometer unit limits the overall charging range. Due to the unique "cup" shape of the metering plunger, the smallest charge that can be metered is approximately 10 grains (dependent upon powder density) and the maximum charge weight is approximately 50 grains.

Competition Micrometer

To achieve the most uniform powder metering possible for Rifle Competition, the micrometer was given a unique hemispherical or "cup" shape. This shape creates a powder cavity that resembles the bottom of a test tube to alleviate irregular powder settling in otherwise square corners.

Adjustable Powder Baffle

An adjustable powder baffle is provided to assist charge to charge uniformity by maintaining a constant column of powder above the metering chamber. Various types of powder and different operating techniques may require adjusting the location of the baffle. A good starting position is approximately 1/2 to 2/3 the height of the reservoir.

Anti-Backlash Micrometer

The Competition Model BR - 30 Powder Measure has been engineered to reduce the impact of backlash inside the micrometer. This feature reduces minute tolerances in the screw threads, minimizing thread backlash, assuring your settings will be very repeatable year after year.

Micrometer Lock (Set Screw)

A set screw located under the operating handle on the right side of the powder measure securely attaches the micrometer in place. This prevents movement of the micrometer when the knurled lock screw (left side) is loosened to make setting adjustments. This set screw is often overlooked and must be removed for complete disassembly. (See Cleaning and Disassembly)

Assembly and Set Up

The Model #BR-30 Powder Measure is shipped with the drum and metering chamber pre-assembled in the frame. As a result, there is very little further assembly required.

Before attaching the reservoir, check the following:

- a. Observe the metering chamber cavity and the "cup" shape of the metering plunger. Be certain that this cavity is clean and dry before proceeding. Wipe out with a "Q"-tip if necessary.
 - b. Observe the location of the powder baffle. If it is not already located approximately one-half to two-thirds the height of the reservoir, slide it to that point. Now attach the powder reservoir to the frame using the two dog point set screws provided in the frame.
1. Attach the operating handle according to the illustration with the single pan head screw provided.
 2. Decide upon the most convenient location for your powder measure and attach the mounting bracket. Keep in mind it should be mounted very rigidly for best results. You should use a well braced shelf or the edge of a solid bench that is not subject to accidental jarring or vibration.
 3. An optional bench stand (Model #RS-6) (Part #06000) is available for convenient bench top mounting of all Redding powder measures. It is also interesting to note that our tests have repeatedly demonstrated that powder measures show slightly improved accuracy when mounted in the #RS-6 Bench Stand rigidly mounted to a solid bench.
 4. The frame of the powder measure can now be inserted into the mounting bracket (or optional bench stand) and secured with the 7/8" -14 lock ring. The mounting bracket and bench stand have no internal threads so you can conveniently align your powder measure at any desired angle. This feature also allows for the easy removal of the measure to change powders or to quickly dump unused powder back into the original container at the end of a reloading session.

Micrometer Settings

- Before attempting to rotate the micrometer barrel, loosen the knurled lock screw on the *left* side of the powder measure.
- Rotate the barrel and observe the micrometer unit. The graduations are very similar to a conventional micrometer.

The rotating micrometer barrel is graduated from “0” thru “4” and back to “0”. Each numbered line has a value of 1 and the shorter lines have a value of .1. Thus, any setting from “0” to “80” is possible. Once a setting has been made, the lock screw should be re-tightened to retain that setting.

Note: These graduations are provided for the convenience of setting the powder measure and are for reference only. THE GRADUATIONS DO NOT INDICATE GRAINS OF POWDER.

Remember: All powder measures are volume metering devices. Always verify the actual weight of your settings with an accurate powder scale.

Operating the Measure

Select the desired powder type that you wish to use and fill the reservoir. Be certain to fill it at least half full.

Several charges should be thrown to settle and stabilize the powder measure. (So as to not upset this condition, these charges should be returned to the original container and not the powder measure reservoir). Use this time to develop a smooth and uniform operating rhythm. The important thing to learn at this point is: UNIFORM OPERATION IS THE KEY TO UNIFORM CHARGES. Operate the measure at the same speed with each stroke of the handle.

Check the actual weight of several sample charges using an accurate powder scale and make any necessary adjustments to the micrometer setting until the desired charge weight is established. Record the micrometer setting, powder type and actual charge weight in your reloading notes for future reference.

The measure is now set up and ready to charge cartridge cases with powder. While holding a case under and against the drop tube, operate the handle with the same uniform stroke that you used when setting the micrometer. Repeat this procedure for each case. The translucent drop tube will allow you to visually watch the powder flow into each case.

It is a good safety practice to visually check each case for the same level of powder and to spot check the measure settings with an accurate scale after every ten to fifteen charges.

At the end of the reloading session, always return any unused powder to the original container. Never leave powder in the measure when it is unattended as it may be spilled, mixed, or become misidentified. Sunlight, humidity and other elements may also have a detrimental effect.

Mastering Difficulties

Some granular extruded powders are difficult to meter through any powder measure. However, all Redding powder measures will handle them successfully if the proper operating technique is mastered.

The rotating drum is designed with a very sharp edge for cutting such powders. You may feel resistance in the operating handle at a certain point in the stroke where the shearing action is taking place. This shearing is inevitable and is usually only one or two grains of powder. The trick is to learn how to accomplish the powder cutting with the least amount of disturbance and still maintain a smooth, uniform rhythm. One of the best

methods is to put your thumb on the frame of the measure while operating the handle with the first two fingers.

With a little practice using this method, a good operator can achieve charges within one-half of one percent of the desired charge even with difficult powders.

We previously discussed rigid mounting of the powder measure, be certain that it is securely mounted.

The translucent drop tube allows you to visually detect powder flow.

You may prefer to change your technique slightly. The handle may be bumped lightly against the limit of its travel if desired. This routine of lightly bumping the handle is preferred by some and settles the powder in the reservoir. If you use this method of bumping, it should be done **lightly and uniformly**. Heavy handed banging of the handle will only cause erratic charges and damage the measure.

If you change your operating technique, re-evaluate and re-check your micrometer settings.

Micrometer Zero

If you have reason to believe that the micrometer has become misaligned, you can easily check it as follows:

- Loosen the knurled lock screw on the left side of the powder measure.
- Turn the micrometer barrel in towards zero as far as it will go using only finger pressure.
- The zero on the rotating barrel should align with the zero-index line on the fitted sleeve. If it does not, you should tighten the lock screw
- Release the barrel screw on the end of the micrometer
- Rotate the barrel until the zero lines match and retighten the barrel screw.

Cleaning and Disassembly

Cleaning of the powder measure is rarely necessary but may sometimes be required after extended use with certain fine grain powders. An accumulation of dust or powder residue between the close-fitting drum and frame may cause a slight drag which hinders smooth operation. If you suspect this condition, check the "feel" of the measure with all powder removed.

If the unit requires cleaning, disassemble according to the instructions below and simply wipe the drum and inside of the frame with a clean piece of cheese cloth. If you wish to dampen the cloth slightly, ordinary household alcohol will work fine.

Petroleum products and solvents should not be used and will cause damage to the reservoir and drop tube.

Never use anything abrasive and do not disturb the sharp cutting edges of the drum, they must remain sharp.

Lubrication is not necessary because the frame is a natural bearing surface of cast iron. *Never use oil of any kind on any powder measure.*

Disassembly may be accomplished in the following manner:

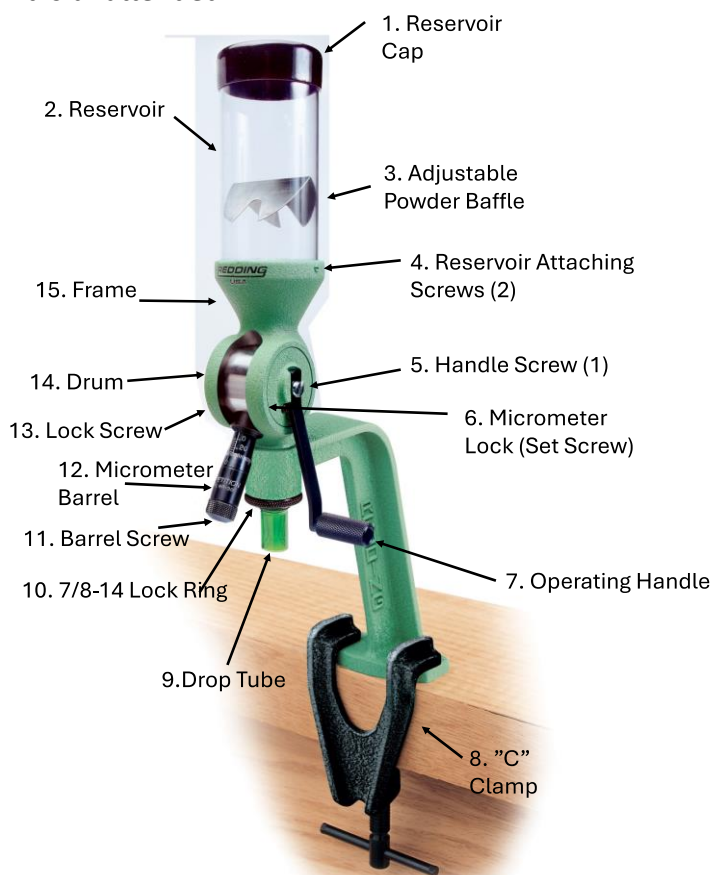
- Remove the operating handle to gain access to the micrometer locking set screw under the handle.
- This screw need not to be completely removed but must be loosened a minimum of *three* full turns.
- Completely remove the knurled lock screw from the left side of the drum.
- The entire micrometer will now slide freely out of the drum and frame.
- Once the micrometer assembly is removed, the drum will freely slide right or left out of the frame.

To re-assemble, carefully reverse the procedure.

Safety Tips

- Always verify powder measure settings with an accurate scale. Variations can occur in powder density, temperature, humidity, and operating techniques, all introduce variations that must be checked prior to loading ammunition.
- Do not smoke while using powder measure or handling powder.
- Periodically spot check the actual weight of measured charges during the reloading session.
- Visually check all cases for the same level of powder.
- Always return any unused powder to the original container at the end of a reloading session.
- Never leave powder in a powder measure when it is unattended.
- **DO NOT** use this measure with black powder.

Item	Part #	Description
1.	99101	Reservoir Cap
2.	99130	Reservoir
3.	03080	Adjustable Powder Baffle
4.	99088	Reservoir Attaching Screws (2)
5.	99100	Handle Screw (1)
6.	99171	Micrometer Lock (Set Screw)
7.	03038	Operating Handle
8.	30520	"C" Clamp
9.	03003	Drop Tube
10.	03020	7/8" - 14 Lock Ring
11.	03043	Barrel Screw
12.	03040	Micrometer Barrel
13.	03007	Lock Screw
14.	03032	Drum
15.	03001	Frame
	03018	Optional Mounting Bracket
	06000	Optional RS-6 Bench Stand



***Not all Part #s alone are available as replacements parts. ***

If you have any questions regarding the above procedures, please do not hesitate to contact our tech support members.

Email: techline@redding-reloading.com

Phone: (607) 753- 3331

Lifetime Warranty Disclaimer:

All Redding Reloading Equipment has been carefully inspected prior to shipment and is fully warranted to be free from defects in materials and workmanship for life.

Any product or parts which prove to be defective will be replaced or repaired without charge if returned prepaid to the factory.

Note: We reserve the right to decline responsibility where misuse or careless handling is evident or where repairs or modifications have been made or attempted by others.