

user instructions



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RUGGED ROTATOR

MODELS: 099A RD4512, RD4512HD & RD4524; 099A RD5512 & 099A RD5524

The Glas-Col rugged rotator is a small bench top rotator designed to hold various types of laboratory glassware. The rotator has variable speed drive and is adjustable from 0 to 83 revolutions per minute. A closely balanced load will produce the most uniform rotation.

The models ending in "HD" are heavy duty models that can handle more weight capacity.

There are several different types of heads and holders available for a variety of laboratory glassware. See brochure LAB 25 for more details.

Rotator Set Up

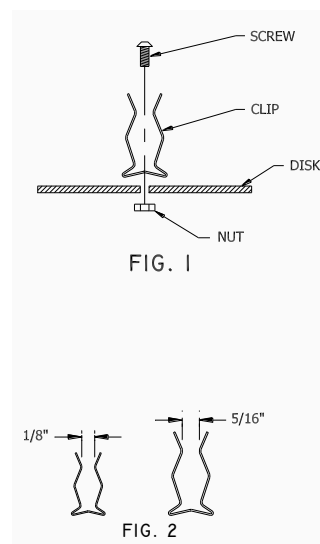
Unpack the rotator and set it on the bench where desired. The cord-attached controller can be positioned next to the rotator on the bench top or away from the rotator if the unit is to be used in an enclosure such as a fume hood.

Plug the power cord from the controller into a grounded 120-volt (240 volts for RD4524 and RD5524) outlet. The power switch, fuse and speed dial are all located on the front of the controller.

The rotator is furnished with a test tube holder 099A RD65, for holding tubes 10mm to 30mm in diameter. Thirty small test tubes 10 to 18mm in diameter and up to 125mm long can be held by attaching the smaller clips to the holder. Fifteen large test tubes 20 to 30mm in diameter can be held by attaching the larger clips to the holder. Large and small clips can be attached to hold both large and small tubes simultaneously.

Attaching Clips to Disk

The friction drive test tube head is shipped without clips attached to the disk to allow the user to attach whichever clip size is needed for the application. To attach the clips to the disk, see Figure 1. By using a nut-driver or wrench to hold the nut on the backside of the disk, the screw can be tightened to achieve proper tension to securely hold the test tube. When using the small clips, tighten the screw to achieve a distance of 1/8", see Figure 2. This tension will accept a tube from 10mm to 18mm in diameter. The large clip is attached in the same manner as mentioned above; however, due to the size of the clip, every other hole in the disk must be used. The larger clip will accept a tube from 20 to 30mm in diameter at its pretension adjustment.



Attaching Disk to Rotator

Loosen the knobs on each side of the rotator and position the motor housing so the motor shaft is pointing upward. Retighten knobs.

Slide the aluminum disk over the drive bar and align pin into small hole in disk. Slide the nylon spacer over the aluminum drive bar, then flat washer and then tri-pointed knob. Tighten knob so there is no back and forth movement of the nylon spacer.

Loosen the knob on each side of the rotator and tilt the housing to the desired angle for rotating the tubes and then retighten both knobs.

Placing Tubes in Clips

Tubes can be inserted or removed by one of two methods. Tubes can be slid radially from the side of the clip. This method is preferable because the tube is less likely to break. As the diameter of the tube increases, inserting them using this method requires a bit more effort. It may be necessary to loosen the screw slightly to allow the larger tubes to slide through easier yet maintain proper tension to hold the tube in place. Tubes can also be inserted from the top, and removed in the same way.

**EXERCISE CAUTION WITH ALL GLASSWARE
WHEN INSERTING INTO THE CLIPS.**

Operating the Unit

Make sure all of the glassware is secure and will clear the workbench before turning the speed control to the desired setting. Flip the switch to the ON position with the motor speed control set to the lowest possible setting. Observe the rotator make one revolution at a very slow speed. Once satisfied that the vessels clear the workbench and any other adjacent obstructions, set the motor speed to the desired setting.

Note: Do not turn the main power switch “ON” with the motor speed setting set to any percentage higher than 0 percent as this could result in damage to the control.

Maintenance

Most motor failure can be attributed to brush wear. To change the brushes, unplug the unit and remove the back cover of the motor housing. The brush holders are located at the end of the motor. These are the two black plastic circular areas, 180 degrees apart. The caps covering each brush holder have a slot in them to allow access to the brush by unscrewing them. Check one side at a time.

The brush can now be removed by turning the motor on its side to allow the brush to fall out of the holder. A spring used to hold the brush in will fall out first. Check the brush size. Lengths of 3/16” or less should be replaced with new ones.

To replace the brushes, simply slide the new brush into the holder, curved surface first. Replace the spring and compress it by replacing cap and tightening it back into holder.

The rack should be protected from spills, mechanical damage and corrosive atmospheres so far as possible. Any spills should be cleaned quickly and any damage should be repaired immediately.

Common Replacement Parts

Nylon Spacer.....	R66 362
Tri-Pointed Knob.....	R60 172
Brushes (ea.).....	R70 236
#6-32 x 1/2" Screw.....	R84 167
#6-32 Hex Nut.....	R84 253
Small Clip.....	R96 365
Large Clip.....	R96 366
Flat Washer.....	R92 222

Limited Warranty

Glas-Col warrants products of its manufacture to be free from defects in material and workmanship **for one year** and agrees to repair or replace without charge any products found defective upon examination at the factory. With proper care and operation, Glas-Col products will give long and efficient service. Chemical spillage, overloading and general misuse will greatly reduce the service life. Glas-Col is not responsible for damage to apparatus due to improper installation or through attempts to operate the apparatus beyond its rated capacity, intentional or otherwise.

Limitations of Warranties

APART FROM SUCH WRITTEN STATEMENT OF WARRANTY, THERE ARE NO WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, WHICH EXTEND BEYOND THE DESCRIPTION OF THE PRODUCTS ON THE FACE HEREOF.

Glas-Col products are intended only for legal and legitimate purposes in commercial laboratory and industrial settings.

Glas-Col reserves the right to make product refinements without prior notice.

Returns:

Call or fax Customer Service for a Return Goods Authorization (RGA) number before returning a Glas-Col product. Reference the RGA number on the shipping box and on a written description of the problem.

A 20% restock charge of the net price is charged for all standard product returned to stock.

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