

BioFrac Microplate Drop Head Kit

Catalog number 741-0088

Dear Bio-Rad Customer:

The BioFrac Microplate Drop Head kit design improves fraction collection of small sized fractions. By delivering a drop size of approximately 25 μ l compared to approximately 50 μ l for the standard drop head a finer resolution of accessible fraction sizes is obtained.

The maximum recommended flow rate for the Microplate Drop Head is 3 ml per minute; above this flow rate it will deliver a steady stream of fluid.

Unpacking

The BioFrac Microplate Drop Head Kit contains a Drop Head Nut and assembled tubing sleeve.

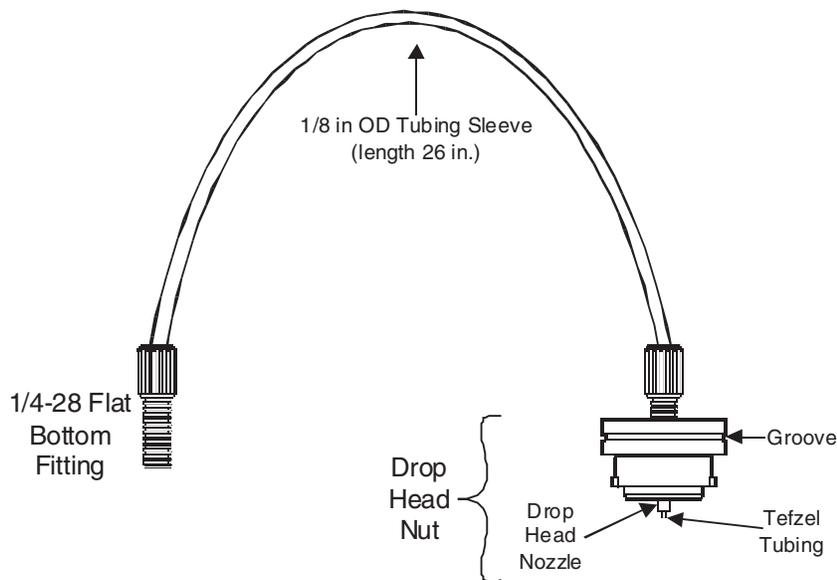
Remove the contents from the box and c. Check all of the parts against the following packing information:

Item Number	Quantity	Description
1	1	Microplate Drop Head Kit

Please check to insure that you have a complete set of components. In case of missing parts or other problems, contact your local representative, or in the United States call Customer Service at 1-800-4BIORAD.

Installation

- 1) On the BioFrac, remove tubing between the drop head and diverter valve. Remove the standard drop head nut Drop Head Nut by turning $\frac{1}{4}$ turn to the left and pulling straight "up".
- 2) Firmly tighten the $\frac{1}{4}$ -28 nut in the Drop Head Nut.
- 3) Make sure the Tefzel tubing extends at least 1 mm beyond the end of the sleeve (see diagram below).
- 4) Install the microplate Drop Head Nut in the BioFrac drop head by inserting the drop head nut in the drop head, and turning the drop head $\frac{1}{4}$ turn to the right.
- 5) Connect the fitting at the other end of the tube to the "collect" port of the diverter valve- when this is properly connected the tubing will have a rainbow curve between valve and drop head.



Using the BioFrac Microplate Drop Head Kit

For this drop head, the typical water droplet size with water is approximately 25 microliters; as compared to approximately 50 microliters for the standard drop head. When collecting by drops with the Microplate Drop Head Nut use a flow rate of 3 ml/minute or less. For drop collection at flow rates up to 5 ml/minutes use the standard Drop Head Nut (included with the BioFrac) and tubing. The tubing provided with the Microplate Drop Head kit is .020" ID Tefzel, approximately 66 cm long, with a 1/8" OD sheath to maintain the shape of the tube. Total internal volume of the tubing is approximately 132 microliters.

* **Note:** When operating in drop counting mode, any existing methods should be changed modified because of due to the smaller drop sizes- as a starting point, multiply the number of drops per tube by 2 to get equivalent fills.

Maintenance

The Microplate drop head requires no maintenance, other than flushing out salt solutions after use, and checking occasionally to ensure that the fittings are tight. The Drop Head Nut may be cleaned with a damp cloth or sponge, or if necessary, or removed the drop head nut from the drop head and rinsed if necessary.

Troubleshooting

If the drops are larger than expected, remove the Microplate Drop Head Nut from the drop head, and make sure that the Tefzel tubing extends at least 1 mm beyond the drop head nozzle- if not, tighten the fitting.