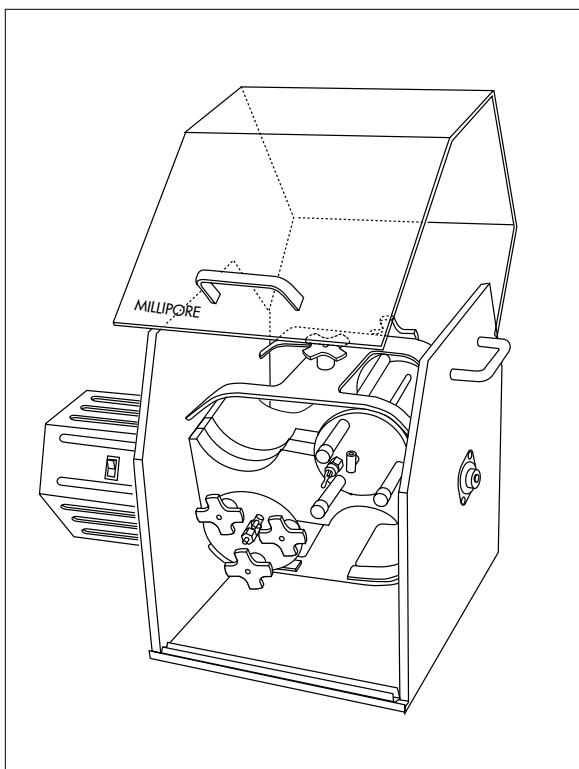


Rotary Agitator

Catalogue Number:

115V/60 Hz

YT31 ORA HW



MILLIPORE

Introduction

The Millipore Rotary Agitator is designed for use with the Millipore Zero Head-Space Extractor (ZHE) in the TCLP procedure. The rotary agitator provides end-over-end rotation, as required by the U.S. EPA, for thorough mixing and extraction of TCLP samples. The rotary agitator fits from 1–4 of Millipore's ZHE units (or 1–4 two-liter bottles). The Millipore Rotary Agitator has these features:

- A safety shield covering the rotor and a motor guard designed for maximum safety.
- The BODine parallel shaft gear motor is designed for applications that require consistently long life and high output torque in relation to gear motor size.
- The agitator requires less bench or floor space than traditional models.
- The gear motor provides quiet operation.

Using the Rotary Agitator

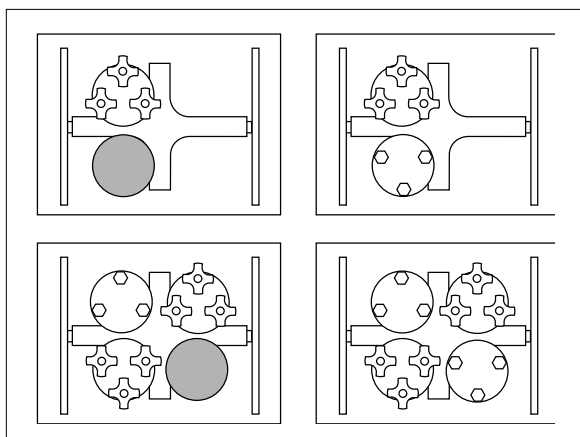
1. Unscrew the handwheel knob on one side of the spindle by turning it to the left, as you face the unit. Remove the knob and the ZHE retaining clamp.
2. Lay one unit, legs attached, in the groove on the left side of the rotor spindle if you are loading one or two units in all. If you are loading three or four ZHE units in all, place a second unit in the groove on the right side.

NOTE: When positioning multiple ZHE units on the spindle, align the top plate of one unit with the bottom plate of the adjacent unit on the same side.

3. Line up the edges of the top and bottom plates of the ZHE unit so they lie next to the strips of padding in the grooves. The top and bottom of each ZHE unit will be flush with the edges of the spindle.

4. Replace the retaining clamp and the handwheel knob. Tighten the knob securely by turning it to the right as you face the agitator.
5. Rotate the spindle to load the other side. Remove the knob and the ZHE retaining clamp on this side of the spindle.

CAUTION: The agitator must be loaded with equal weight on opposite sides of the spindle axis or damage to the motor could occur. See these diagrams for the proper loading configurations:



6. Place a counter-weight (catalogue number SDIP 554 CO) in the groove on the same side (left to right) as the ZHE you previously loaded if you are agitating only one ZHE. If you are loading three units, place the counter-weight and the additional ZHE in the grooves on this side. To load 4 units, place the remaining 2 ZHE units on this side.
7. Replace the retaining clamp and the handwheel knob. Tighten the knob securely.
8. Remove the small red plug from the oil-fill vent. (The gear-box of the motor must be vented to prevent internal pressure build-up as the unit heats up.)
9. Turn on the rotary agitator by flicking the switch located on the top of the motor.

Maintenance

The Millipore Rotary Agitator has an oil-lubricated gear motor and is fitted with a type “1D” gear head. Check the oil level every four to five months, or after every 600 operating hours—whichever comes first. To lubricate the gear motor, use the following steps.

▲ WARNING: Always disconnect the power source before servicing or working on any part of the Millipore Rotary Agitator.

1. Loosen the small nut located on top of the gear motor.
2. Pour the lubricant into the threaded hole until it reaches the top of the opening.

CAUTION: Use BOdine lubricant #LO-38 or a good quality, rust-and oxidation-inhibited oil which conforms to AGMA #5 (SAE #50 non-detergent) and meets the following specifications:

- viscosity range of 918–1122 SUS at 38°C (100°F)
- viscosity index of 90 minimum
- pour point of 0°F (-17.8°C) maximum

3. Replace the nut and tighten securely.

Specifications

Agitator housing	Aluminum
Rotary spindle	Aluminum casting
Retainer clamps	Aluminum
Handwheel knobs	Plastic with brass thread insert
Electrical	115V/60 Hz, 0.63A
Motor	1/15 HP BOdine 34R-2, parallel shaft
Speed	28 RPM
Safe Torque	100 inch pounds
Dimensions	
width	18 in
height	18 in
length	24 in
weight	35 lbs

Ordering Information

Millipore Rotary Agitator:

115V/60 Hz

YT31 ORA HW

ZHE clamp

YT30 ORA 03

Technical Assistance

For further assistance, call 1-800-MILLIPORE (1-800-645-5476). Or, refer to *Millipore Direct* (laboratory products catalogue) for the phone number of the Millipore office nearest you. To access the Millipore laboratory catalogue on the Internet, access the URL menu and type: <http://www.millipore.com>

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