

CRUDE FIBER DIGESTION APPARATUS

**Models 30001, 30002
(New Style)**

INSTRUCTION MANUAL

For more information, please contact us:

ExpotechUSA

10700 Rockley Road
Houston, Texas 77099
USA

281-496-0900 [voice]

281-496-0400 [fax]

E-mail: sales@expotechusa.com

Website: www.ExpotechUSA.com

TABLE OF CONTENTS

Preface..... 4

Introduction

 Components Shipped..... 5

 General Description..... 6

 Component Identification..... 7

Installation

 Location..... 8

 Connections..... 8

 Start-up - Check out 8

Dimensions..... 9

Normal Operation..... 10

Routine Maintenance..... 11

Accessories..... 13

Wiring Diagram..... 14

Warranty..... 15

Shipping Claims 16

Contacting Labconco..... 17

PREFACE

Thank you for displaying confidence in us by selecting a Labconco Crude Fiber Digestion Apparatus. Our design engineers, assemblers and inspectors have utilized their skills and years of experience to ensure that the new Labconco Crude Fiber Digestion Apparatus meets our high standards of quality and performance.

IMPORTANT NOTICE

This manual should be read carefully by all the end users in order to become familiar with the operation of the Crude Fiber Digestion Apparatus. Recommendations are made within the manual to help you obtain maximum performance and life from your product.

We have included sections on initial set up, operation, maintenance and troubleshooting to provide you with all the tools necessary to achieve maximum performance.

Components Shipped

Carefully check the contents of the carton for damage that might have occurred in transit. Do not discard the carton or packing material until all components have been checked against the following component list and the equipment has been installed and tested.

As shipped, the carton should contain the following:

Catalog #	Description
30001	Crude Fiber Apparatus 115V, 50/60 Hz
or	
30002	Crude Fiber Apparatus 230V, 50/60 Hz
19350	Crude Fiber Beakers - 600 ml (12)

INTRODUCTION

General Description

The Labconco Crude Fiber Digestion apparatus is designed for single or multiple reflux digestions of samples for crude fiber content according to methods prescribed by the Association of Official Analytical Chemists (A.O.A.C.).

The following instructions outline the features, installations and maintenance of the Crude Fiber Digestor Models 30001, 30002. This manual should be kept handy so that questions of use or service can be answered.

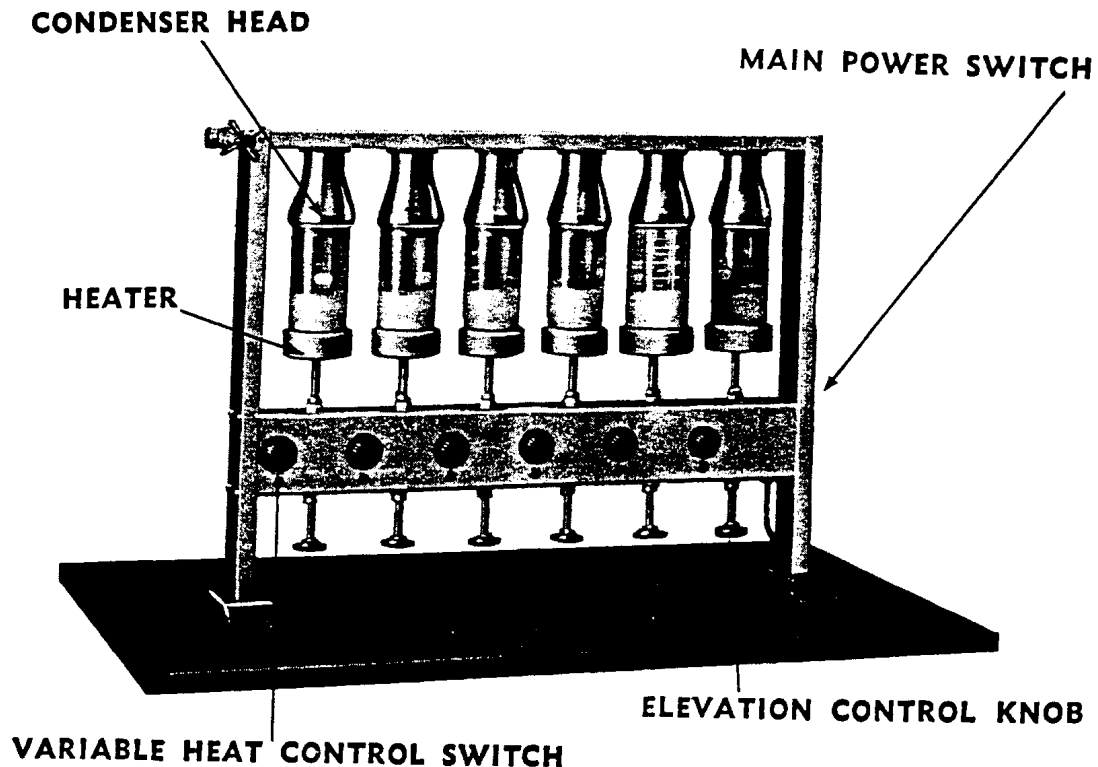


Figure 1

Detailed function of Components

1. **Manifold Assembly.** The hood features a molded, 6" diameter exhaust connection sized to allow for a minimum of static pressure loss through the hood structure and one that still can provide a good transport velocity through the exhaust system.
2. **Condenser Head System.** These cone shaped heads located above each heater provide an essential part of the digestion process. The vapors from the boiling digestion medium are condensed on the condenser heads and returned to the medium continually washing the sides of the beakers in the process.
3. **Heater System.** Each 350 watt adjustable spring loaded heater provides an even distribution of heat through the use of coiled heater wires embedded in a ceramic material.
4. **Variable Heat Control Switch.** Provides variable input from 20-100% of capacity to each heater.
5. **Elevation Control Knob.** Adjusts beakers positions.
6. **Main Power Switch.** Turn apparatus on and off without need of changing variable heat control switches.

INSTALLATION

Installation

Model 30001, 115 Volt, 50/60 Hz. 18.3 amps, is complete except no power cord is supplied on the unit. The customer must provide wiring to the main power switch in accordance with local electrical codes. The unit is supplied with 12 - 600 ml beakers. The unit is also equipped with individual infinite control switches with pilot lights for each heater and a main **ON/OFF** switch. The condensers are Type 304 stainless steel. A 3/8" NPT valve is provided to control water flow through condensers.

Model 30002, 6 unit, 230 Volt, 50/60 Hz, 9.11 amps, is complete except no power cord is supplied on this unit. The customer must provide wiring to main power switch in accordance with local electrical codes. The unit is supplied with 12 - 600 ml beakers. The unit is also equipped with 12 each individual infinite control switches with pilot lights for each heater and a main **ON/OFF** switch. The condensers are Type 304 stainless steel. A 3/8" NPT valve is provided to control water flow through condensers.

Installation Instructions

Location

Choose a location in the laboratory which has a convenient electrical outlet of the voltage required, a cold water supply of 3/8" NPT and drain facilities of at least 1/2" NPT.

Connections

Connect the 3/8" NPT water inlet valve, located on the upper left side of the unit to your cold water supply. This valve regulates the flow of water through the condenser heads.

Connect the 3/8" NPT water outlet located on the upper right side of the unit to an open drain area of at least 1/2" in size. An open drain connection will allow the operator to make a visual check of water flow through the condenser head system.

After the proper electrical connections are made, the unit is now ready for routine operation.

Start-Up and Check-Out

All the heater control switches should be turned on to insure proper performance.

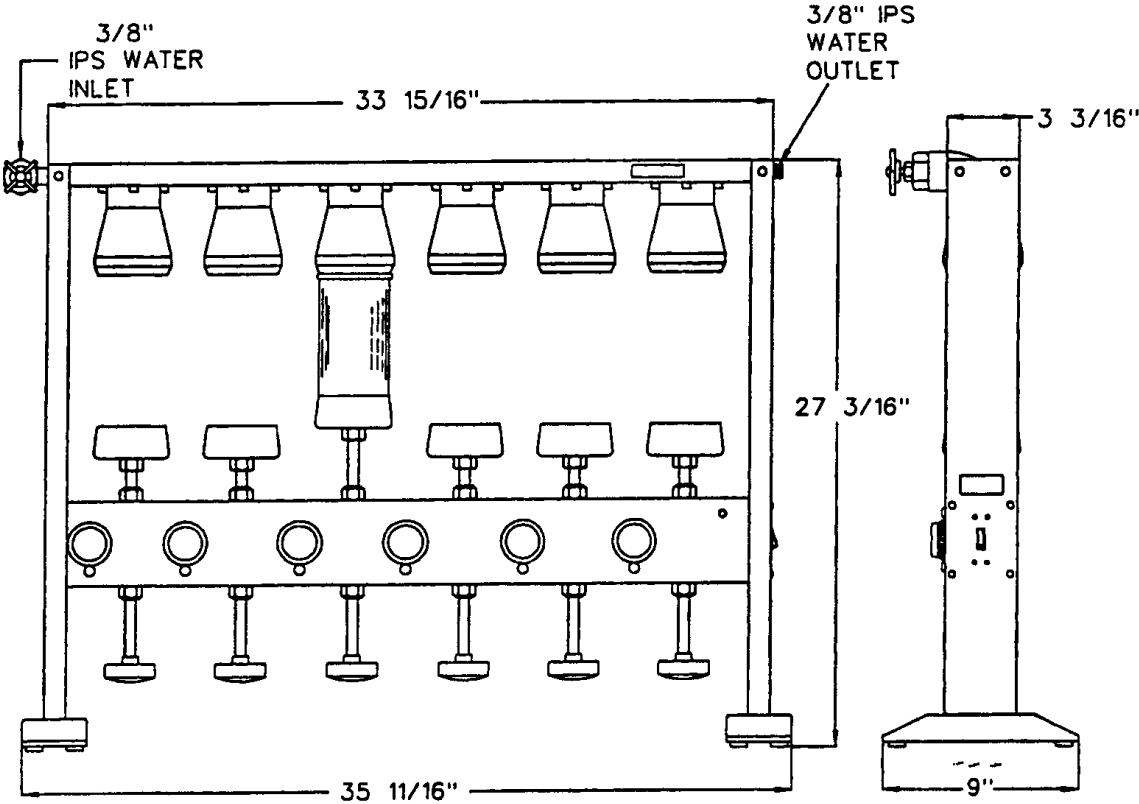


Figure 2

NORMAL OPERATION

Normal Operation

The following section provides a general outline of steps necessary to perform a routine digestion on the Labconco Crude Fiber Digestor. Actual test methods, sample preparation, solvent choices, etc., are determined by official methods of the A.O.A.C. and should be referred to in all cases.

- Turn on cold water supply, check visual flow at the drain area. The heater and water flow rates may be adjusted to vary the reflux rates according to the operator's preference.
- Prepare samples per standard method for the product under examination
- Place required quantity of sample in the beaker.
- Place digestion medium of proper type and quantity into beaker.
- Place beaker on the heaters and while firmly holding knob turn 1/4 turn to the left, and slowly let beaker rise to condenser head. **DO NOT** let go of knob until beaker is in position against condenser head.
- Turn the main power switch, located on the right side, to the "ON" position. Controls on the panel independently regulate one 350 watt heater. The pilot lights indicate heater "ON" cycle.
- Follow A.O.A.C. method and procedure for determination of fiber content

Maintenance

If problems develop with unit, contact the laboratory dealer from whom you purchased the unit. He will be happy to assist you.

REPLACEMENT PARTS

REPLACEMENT PARTS LIST

Models 30001, 30002

(New Style)

<u>Part Number</u>	<u>Description</u>
13154	Infinite Control, 120 Volt, 15 Amp
13155	Infinite Control, 230 Volt, 15 Amp
13159	Toggle Switch, 120 Volt/ 230 Volt, 15 Amp
13516	Valve, needle, water
18702	Knob for infinite control
30031	Heating element, 115 Volt, 350 Watt
30032	Heating element, 230 Volt, 350 Watt
30043	Beaker, 600 ml, Package of 6
30135	No. 14AF – White heater harness wire, stranded, 15' length
30136	No. 14AF – Black heater harness wire, stranded, 15' length
30137	No. 12AF – White heater harness wire, stranded 15' length
30138	No. 18AF – Pilot light wire, stranded, 15' length
30139	No. 18 Heater lead wire, stranded nickel, glass braid, 15' length
30208	Condenser Assembly
30225	Condenser Gasket

ACCESSORY PARTS LIST

<u>Part Number</u>	<u>Description</u>
55100	California Modified Buechner Funnel, complete. Consists of standard polyethylene two-piece funnel with 200 mesh stainless steel screen.
55101	Upper section only (with screen), for #55100 above.
55201	Replacement screen only, for #55210 above
55202	Back-up plate only for #55210 below.
55210	Oklahoma State Filter, complete constructed of stainless steel, one piece with threaded cap. 200 mesh screen with perforated back-up plate.

WIRING DIAGRAM

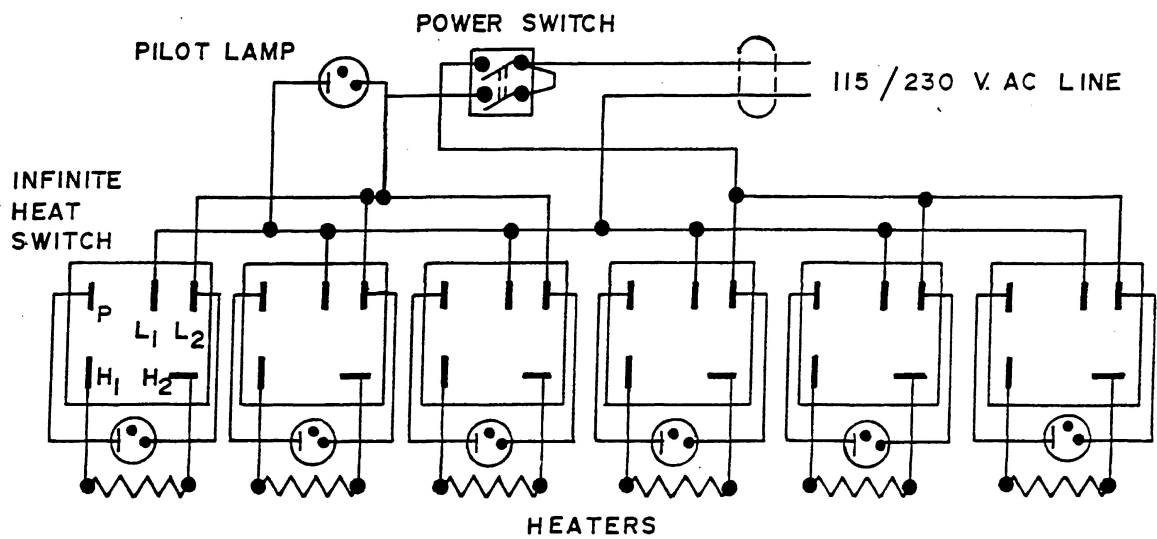


Figure 3

We are committed to providing our customers with quality equipment and service after the sale. Part of this objective involves keeping you informed of changes and new product additions. We therefore request that you take a moment to fill out the product registration card so we may know your location as well as some of the reasons that prompted you to purchase our products.

Labconco provides a warranty on all parts and factory workmanship. The warranty includes areas of defective material and workmanship, provided such defect results from normal and proper use of the equipment.

The warranty for all Labconco products will expire one year from date of installation or two years from date of shipment from Labconco, whichever is sooner, except the following:

- Purifier® Delta® Series Biological Safety Cabinets carry a three-year warranty from date of installation or four years from date of shipment from Labconco, whichever is sooner.
- Carts carry a lifetime warranty.
- Glassware is not warranted from breakage when dropped or mishandled.

This limited warranty covers parts and labor, but not transportation and insurance charges. In the event of a warranty claim, contact the dealer who sold you the product. If the cause is determined to be a manufacturing fault, the dealer or Labconco Corporation will repair or replace all defective parts to restore the unit to operation. Under no circumstances shall Labconco Corporation be liable for indirect, consequential, or special damages of any kind. This statement may be altered by a specific published amendment. No individual has authorization to alter the provisions of this warranty policy or its amendments. Lamps and filters are not covered by this warranty

WARNING: The disposal and/or emission of substances used in connection with this equipment may be governed by various federal, state or local regulations. All users of this equipment are urged to become familiar with any regulations that apply in the user's area concerning the dumping of waste materials in or upon water, land or air and to comply with such regulations.

SHIPPING CLAIMS

If a shipment is received in visibly damaged condition, be certain to make a notation on the delivering carrier's receipt and have his agent confirm the damage on your receipt. Otherwise, the damage claim may be refused.

If concealed damage or pilferage is discovered, notify the carrier immediately and retain the entire shipment intact for inspection. Interstate Commerce Commission rules requires that the claim be filed with the carrier within 15 days after delivery.

NOTE: Do not return goods. Goods returned without prior authorization will not be accepted. Labconco Corporation and its dealers are not responsible for shipping damage. Claims must be filed directly with the freight carrier by the recipient. If authorization has been received to return this product, by accepting this approval, the user assumes all responsibility and liability for biological and chemical decontamination and cleansing.

For more information, please contact us:

ExpotechUSA

10700 Rockley Road
Houston, Texas 77099
USA

281-496-0900 [voice]

281-496-0400 [fax]

E-mail: sales@expotechusa.com

Website: www.ExpotechUSA.com