



# HUMBOLDT

## Auto Centrifuge Extractors H-1461, H-1465 & H-1460, H-1464



Centrifuge Extractors enable testing in accordance with D2172, Standard Test Methods for Quantitative Extraction of Bitumen From Bituminous Paving Mixtures, and AASHTO T164, Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA). These methods cover the quantitative determination of bitumen in hot mixed paving mixtures and paving samples.

They are used to determine the quantitative bitumen content in paving mixtures, where samples are weighed, heated slightly until crumbling occurs, cooled, and then placed into the rotor bowl of the centrifuge where solvent is added.

The centrifugal action forces the liquid through a filter paper ring at the bowl's periphery and the process is repeated until the expelled solvent is a clear color. The weight of the aggregates is weighed and graded before and after extraction, which determines the constituent proportions.

Models H-1460 and H-1461 are designed for use with 1500g samples, where as and H-1464 and H-1465 are designed for use with 3000g samples. These units are 120V 60Hz and models with a .4F designation are 220V 50/60Hz.

Models H-1461 and H-1465 conform to the explosion-proof standards for the safety of operating personnel. These models feature a removable aluminum bowl assembly, which quickly lifts out of the sealed housing for efficient specimen handling. A simple, control knob adjusts bowl speed. The heavy, cast-aluminum bowl cover latches securely in place and features an integral solvent dispensing cup for easy pouring of the solvent into the bowl.

Models H-1460 (1500g) and H-1464 (3000g) extractors are open-motor versions of the explosion-proof models described above. While they are safe to operate, they do not provide the added safety of the explosion-proof design. These extractors are a great economical choice for those who need an extractor, but may not use it extensively. These, open-motor models are not available in 220V configurations. All units have an accurate and dependable electronic, solid-state speed control, which is adjustable up and down. An electric brake provides a stopping function for bowl rotation in less than 10 seconds.

Units are constructed of a corrosion-resistant lightweight cast-aluminum and include 25 filter discs. The purchase of extra bowls are recommended to speed multiple batching.

## Specifications:

### Motor Speed Range (rpm):

The motor speed range is adjustable to accommodate a variety of testing requirements. Specific rpm settings are configurable within the unit's operational range.

### Power Requirement:

Power is supplied by a 1/8hp DC motor, providing reliable and efficient operation. Both explosion-proof and open-motor versions are available for use for 115V operation. 200V models are only available as explosion-proof models

### Timer Control:

Automated, allowing for unattended operation between 1 to 10 minutes. Once the time expires, the unit automatically brakes and stops.

### Digital Display & Control:

Easy-to-use interface for adjusting time and speed settings. Quick adjustment of settings through rotating dials. Digital readout of time and speed for precise testing control.

### Filter Discs:

Supplied with 25 filter discs.  
Replacement filter discs (100-packs) are available.

### Mounting Options:

Controller can be mounted on a wall or remotely for improved visibility and vibration isolation.

### Automatic Braking System:

Unit automatically brakes and stops after the pre-set cycle time is completed, reducing the risk of malfunction.

### Memory Function:

Last test cycle settings are retained for repeatable tests, minimizing the need for manual adjustments.

### Remote Control Option:

The controller can be mounted remotely for better visual monitoring, ensuring operator safety.

### Standards Supported:

ASTM D2172  
AASHTO T164

## Features:

- Used to determine the amount of bitumen content in paving mixtures.
- Electronic speed control is adjustable from 0 to 3600 rpm.
- Includes hand operated braking mechanism.
- Use with either 1500 or 3000 gram bowl.
- Available with explosion proof motor, or open frame motor.
- Both explosion-proof and open-motor versions are available for use for 115V operation. 220V models are only available as explosion-proof models.
- 25 filter disks are included.



**Humboldt Mfg. Co.**  
[www.humboldtmg.com](http://www.humboldtmg.com)  
875 Tollgate Road  
Elgin, Illinois 60123 U.S.A.

U.S.A. Toll Free: 1.800.544.7220  
Voice: 1.708.468.6300  
Fax: 1.708.456.0137  
email: [hmc@humboldtmg.com](mailto:hmc@humboldtmg.com)