



Humboldt Vicat Testers



## General

Vicats consist of three main components:

- A frame with base, upright and graduated scale
- A plunger assembly with needle(s), weight(s) and adjustable indicator
- An appropriate mold and glass plate

The equipment meets specifications for the following tests:

H-3050: ASTM C91, C141, C187, C191, C308, C451 and C472  
AASHTO T129, T131, T186

H-3060: ASTM C359, AASHTO T185

H-3085: ASTM C807

H-3090:

H-3120: ASTM C110

H-3133: ASTM C780

H-3135/37: ASTM C472

H-3134: American Dental Association

Humboldt supplies replacement plungers, needles, weights and molds.

Please refer to the model number above to aid in identifying the proper part(s).

## Unpacking

Your equipment was thoroughly inspected before it was shipped and should be ready to operate as soon as you have completed the set-up procedure. Notify Humboldt Mfg. Co. or your local agent and file a claim with any carriers involved if you find any damage to the machine. Unpack all of the equipment carefully to prevent loss of small items or manuals.

## Assembly & Set-up

Place the vicat tester frame on a stable, vibration free surface with space on either side to prepare the material to be tested. It is recommended the instrument be checked and adjusted when received, using a reference material of known consistency for the test.

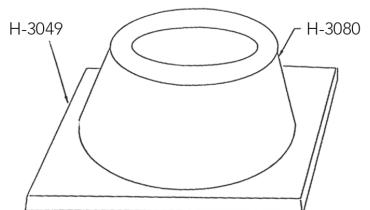
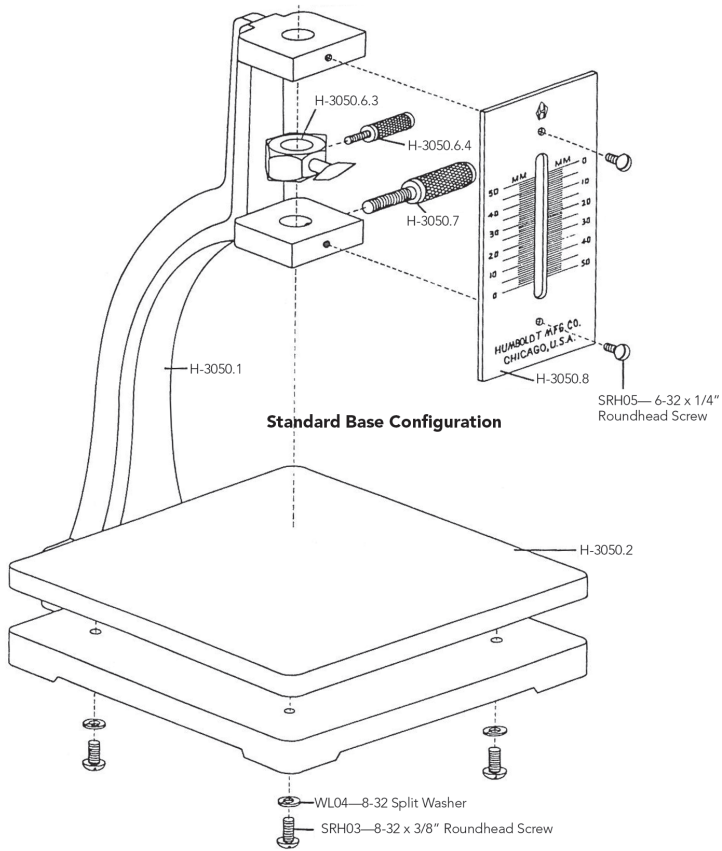
## Operation/Consistency Determination

After molding the sample as directed by the applicable specification, center the sample under the plunger and bring the two in contact. If adjustment is necessary, loosen the knurled adjusting screws on the plunger and indicator as required. Release the plunger within the allotted time after mixing and take a reading at the specified time (usually 30 seconds for each step).

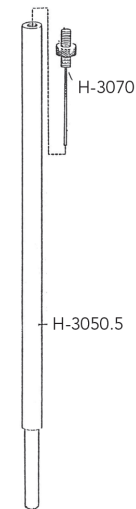
Use varying percentages of water or fluids to make trial cement pastes or other specimens to obtain the target consistency. Make each specimen with fresh material. Calculate and report the required mix values. Refer to the applicable agency test standard for complete requirements.

**Maintenance**

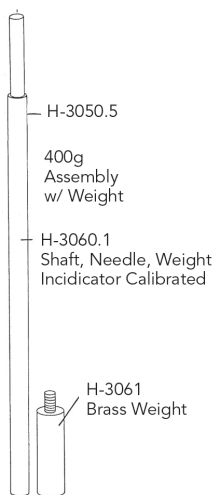
Since the frame has precision bearing surfaces, frequent cleaning of the plunger to prevent sluggish or sticky movement is recommended. Although dry wiping of the plunger with a lint free cloth will usually suffice, isopropyl alcohol can be used if necessary to remove gummy deposits. Do not apply any type of lubricant to the spindle. The scale face can be cleaned using a soft cloth dampened with a mild detergent. Use of aromatic solvents could cause damage.



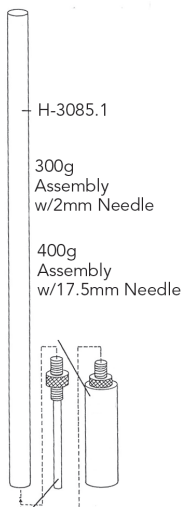
**Standard Base Configuration for all Vicats except H-3133**



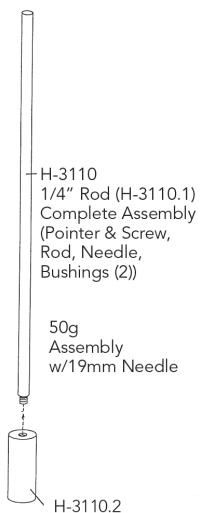
**H-3050**



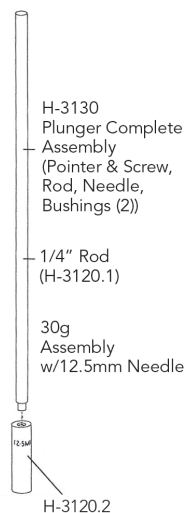
**H-3060**



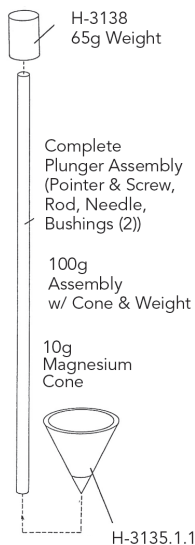
**H-3085**



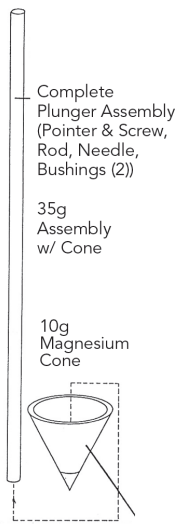
**H-3090**



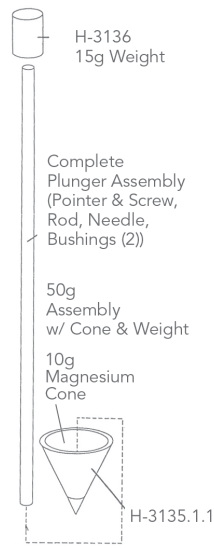
**H-3120**



**H-3134**



**H-3135**



**H-3137**

## Plunger, Needle, Weight and Cone Configurations

H-3133.1 Plunger Assembly (200g):

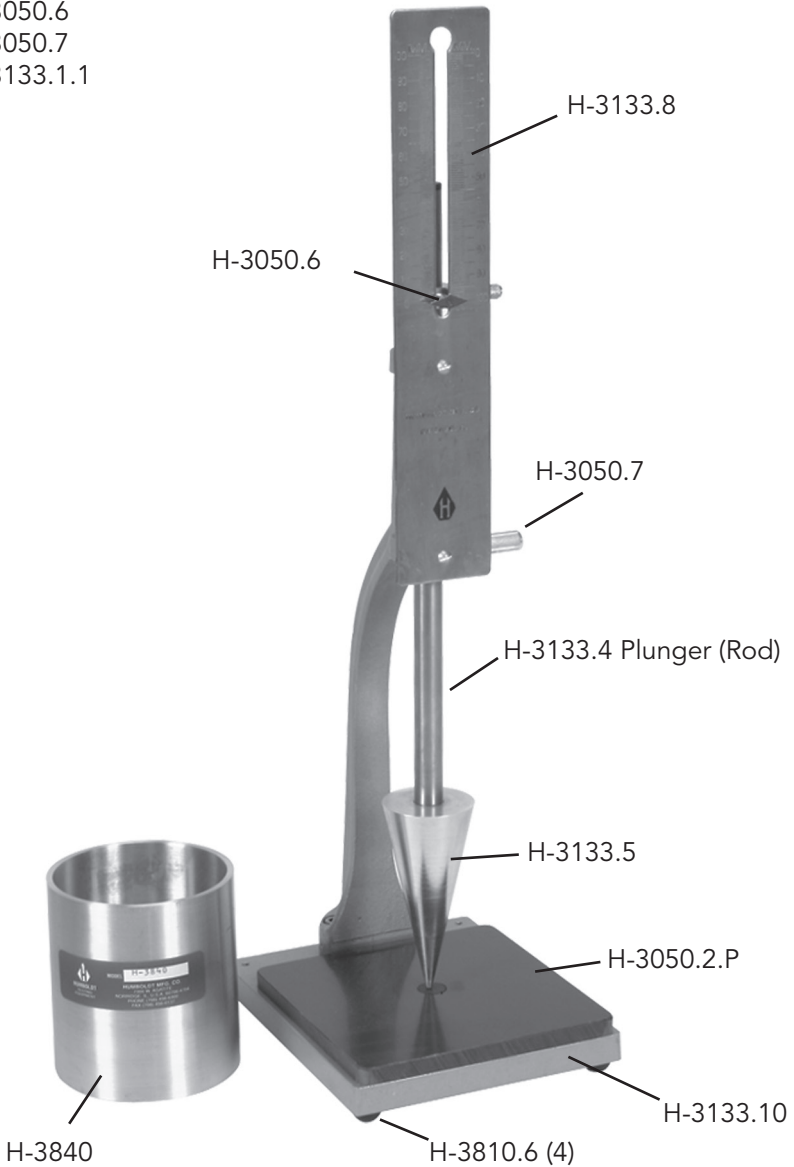
H-3133.4

H-3133.5

H-3050.6

H-3050.7

H-3133.1.1



**H-3133 Components and Parts**

## Warranty

Humboldt Mfg. Co. warrants its products to be free from defects in material or workmanship. The exclusive remedy for this warranty is Humboldt Mfg. Co., factory replacement of any part or parts of such product, for the warranty of this product please refer to Humboldt Mfg. Co. catalog on Terms and Conditions of Sale. The purchaser is responsible for the transportation charges. Humboldt Mfg. Co. shall not be responsible under this warranty if the goods have been improperly maintained, installed, operated or the goods have been altered or modified so as to adversely affect the operation, use performance or durability or so as to change their intended use. The Humboldt Mfg. Co. liability under the warranty contained in this clause is limited to the repair or replacement of defective goods and making good, defective workmanship.

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Testing Equipment for



Construction Materials

# HUMBOLDT

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