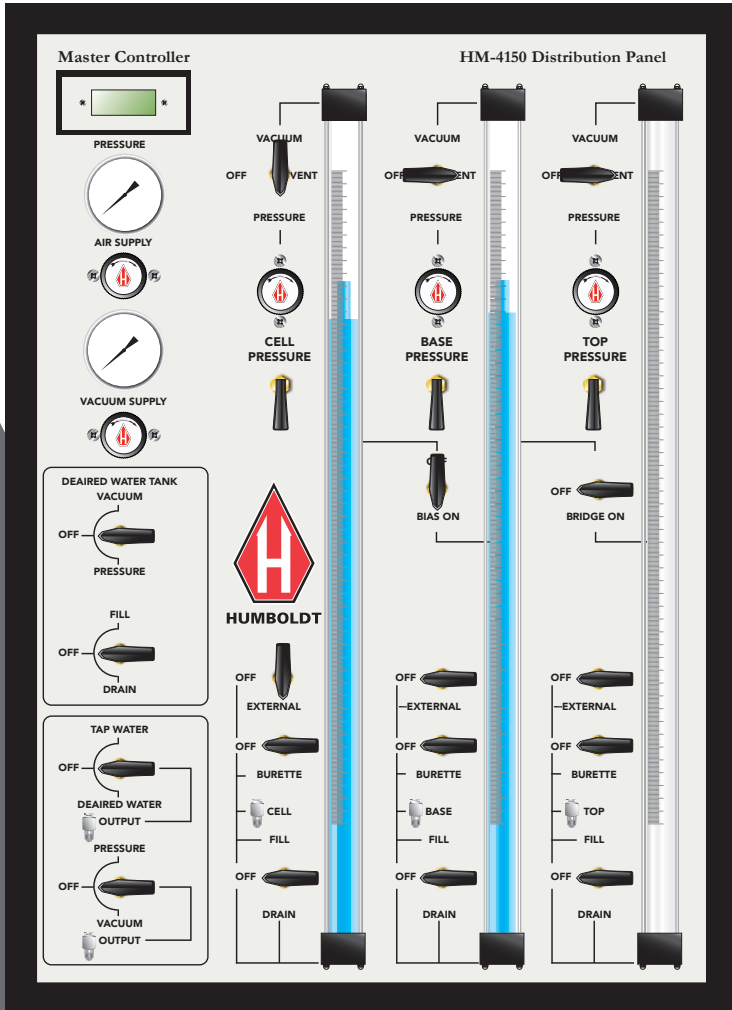
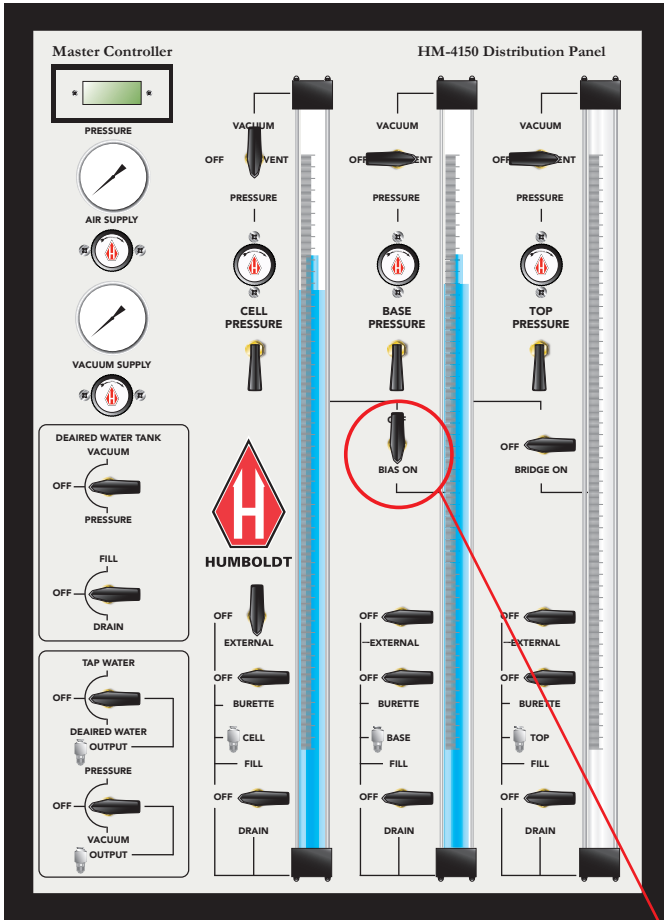


Saturation and Recording B Values



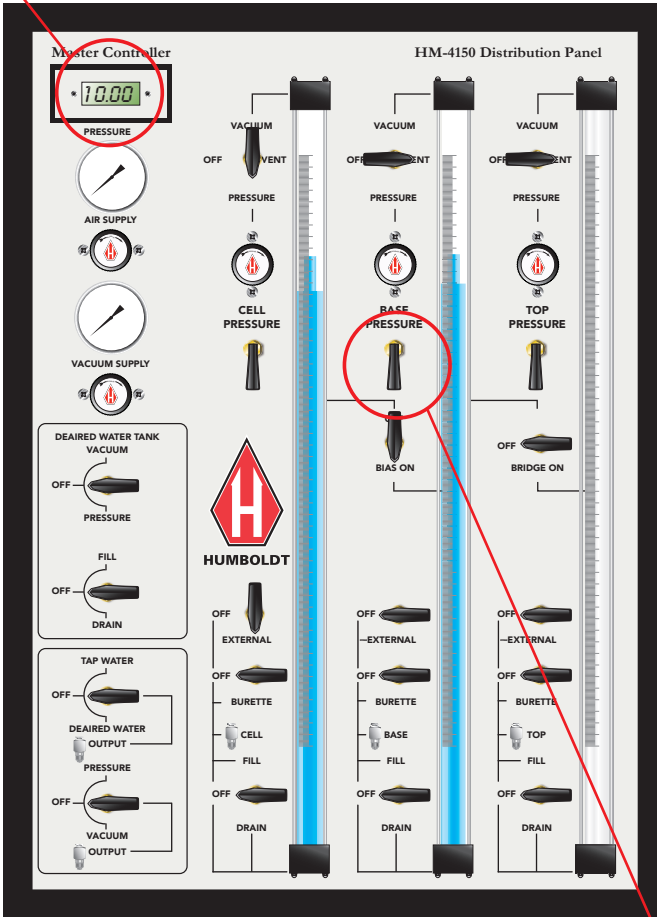


STEP 1

Turn Bias Valve to on.

1

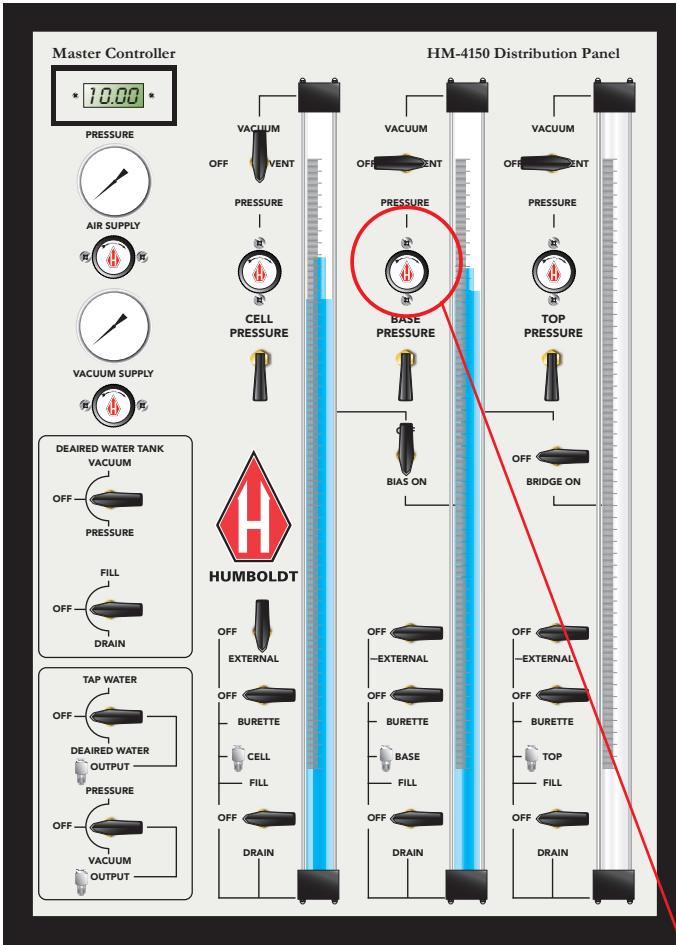
(1)



2

STEP 2

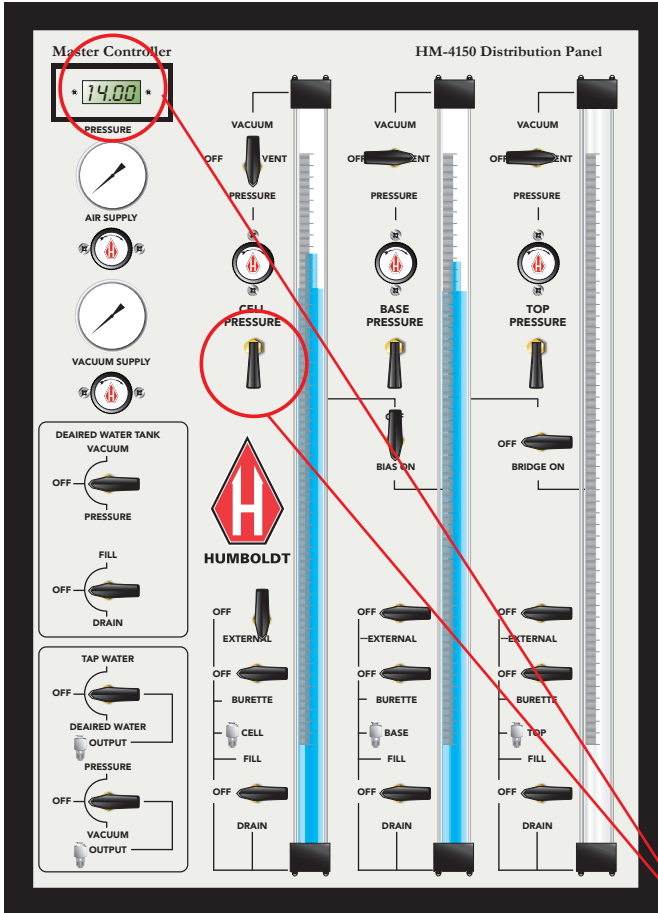
Flip this toggle up, which will reveal the Base Pressure in the Pressure window (1) located at the top left corner of the HM-4150 Panel.



STEP 3

Adjust the Base Pressure Regulator to 10 psi.

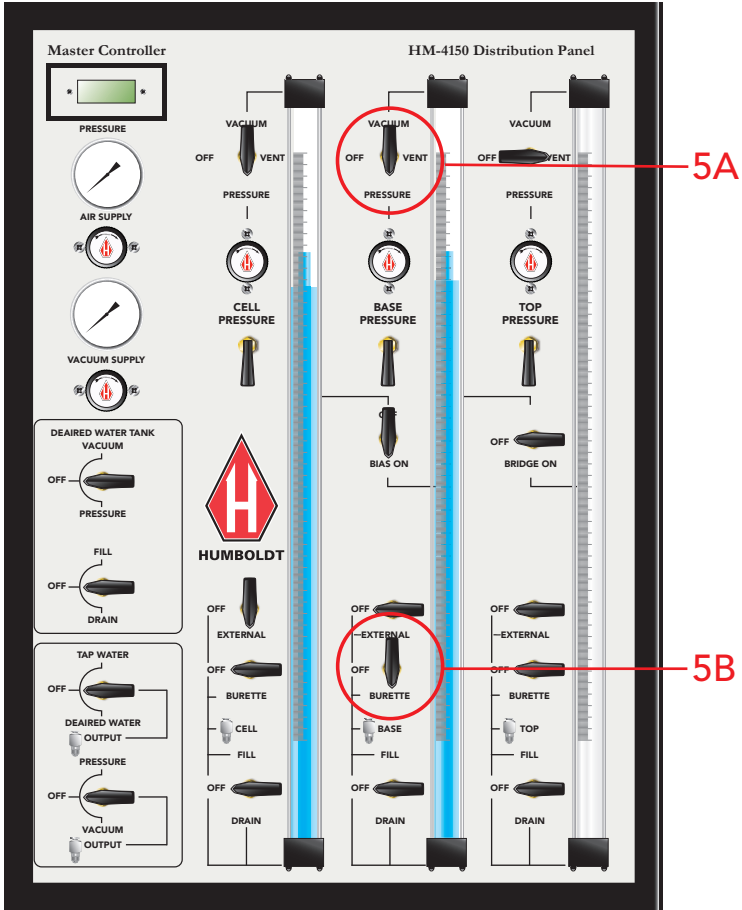
3



STEP 4

To check the resulting Cell Pressure in the Pressure window, flip the Base Pressure Toggle down and Flip the Cell Pressure toggle up. The Cell Pressure will be revealed.

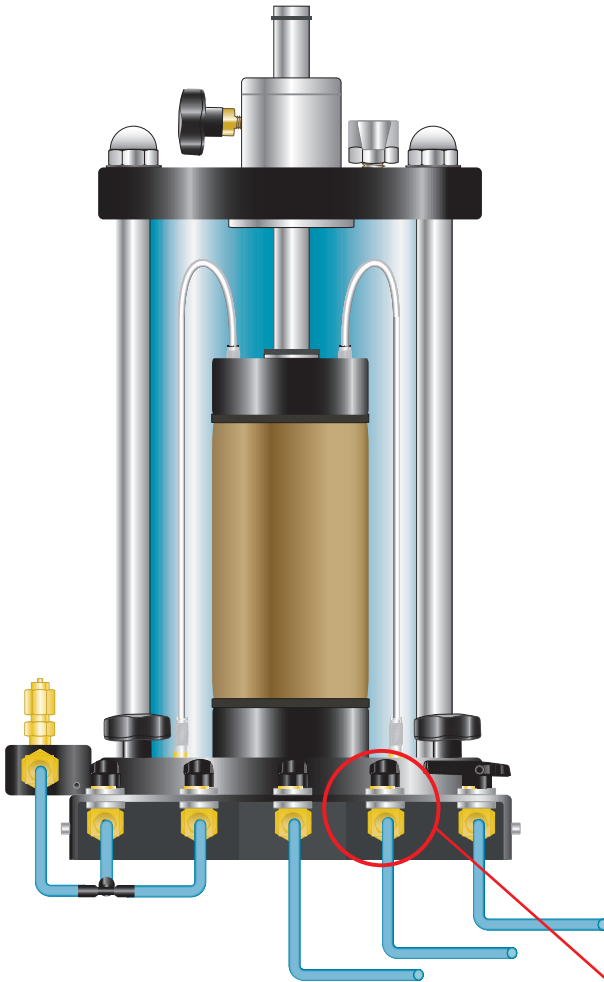
In this case, the Cell Pressure will read 13-15 psi because the Bias Valve is in the On position.



STEP 5

A. Turn Base Pressure Valve to Pressure.

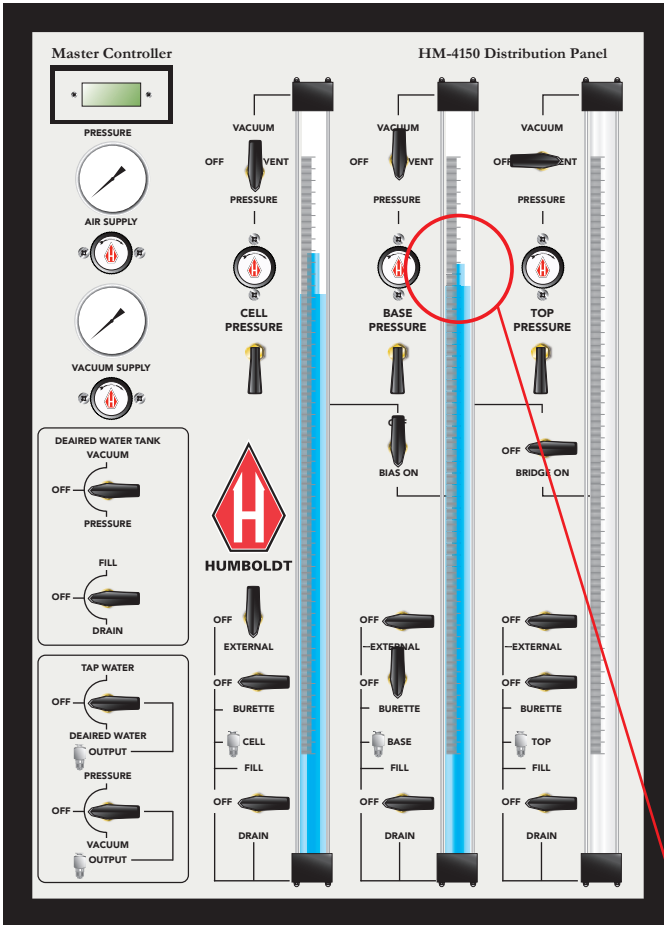
B. Open the Burette Valve on the Base Burette Assembly.



STEP 6

Open Base Valve located on the right-hand side of the Triaxial Cell.

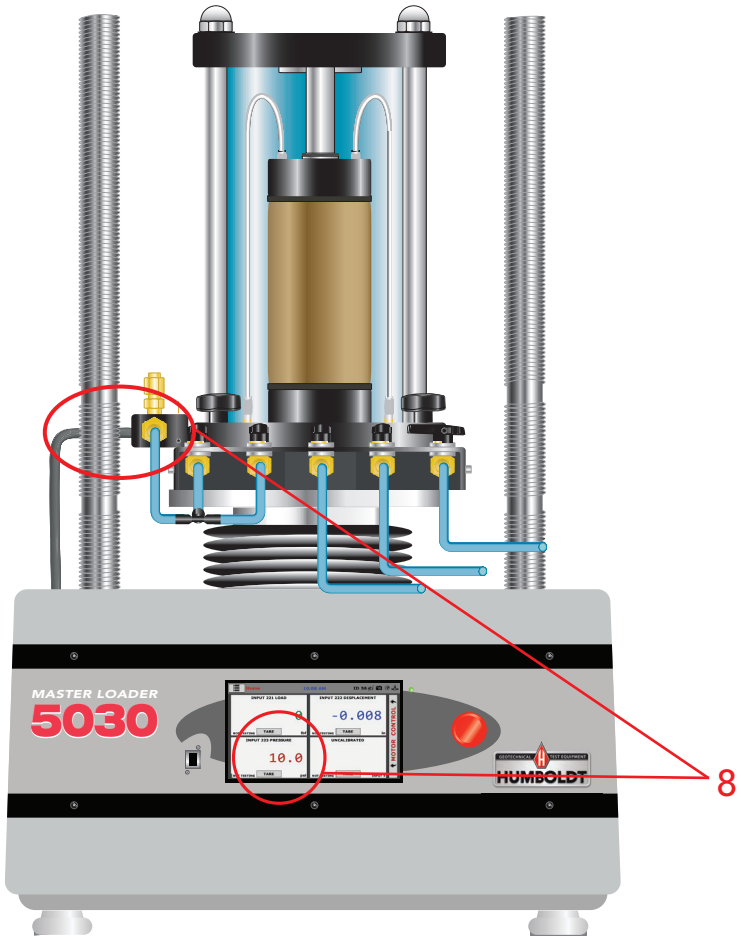
(Top and Base valves located on left hand side of the Triaxial Cell are open).



STEP 7

Record the Base Burette Level.

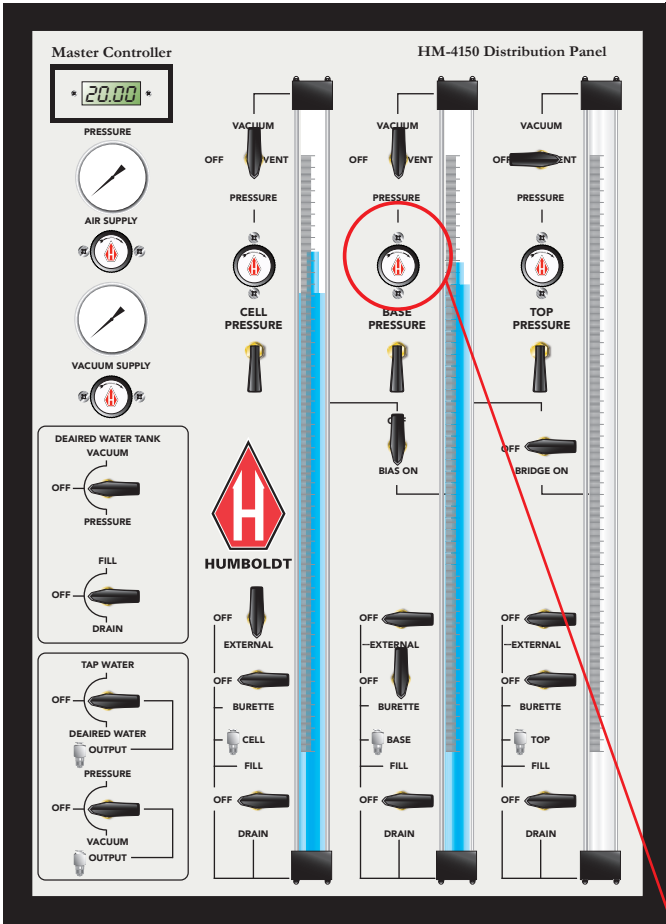
7



STEP 8

Check readout of Pressure Transducer attached to the De-airing Block on the Triaxial Cell. This should read approximately 10 psi.

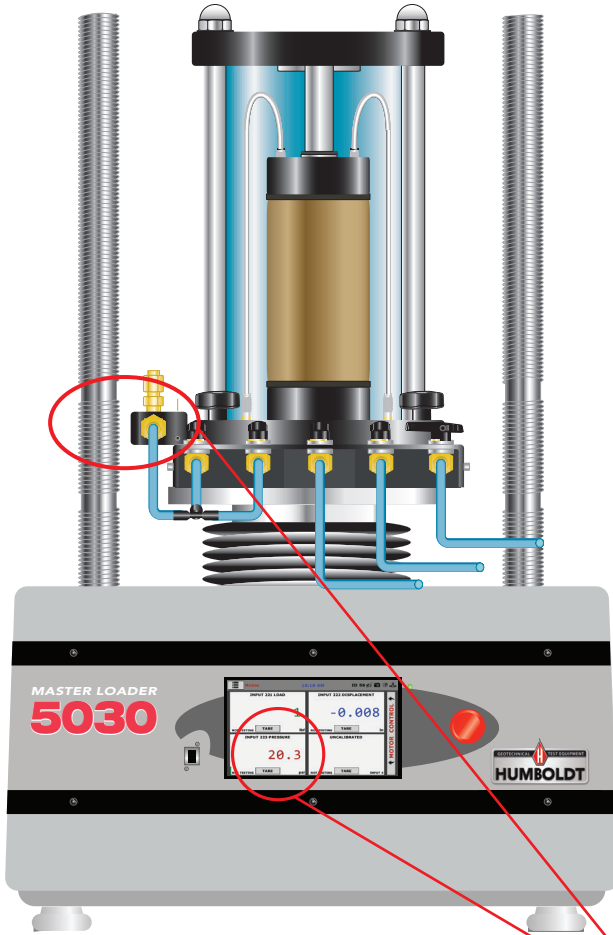
Be sure to allow sufficient time for this reading.



STEP 9

Adjust the Base Pressure Regulator to 20 psi.

9

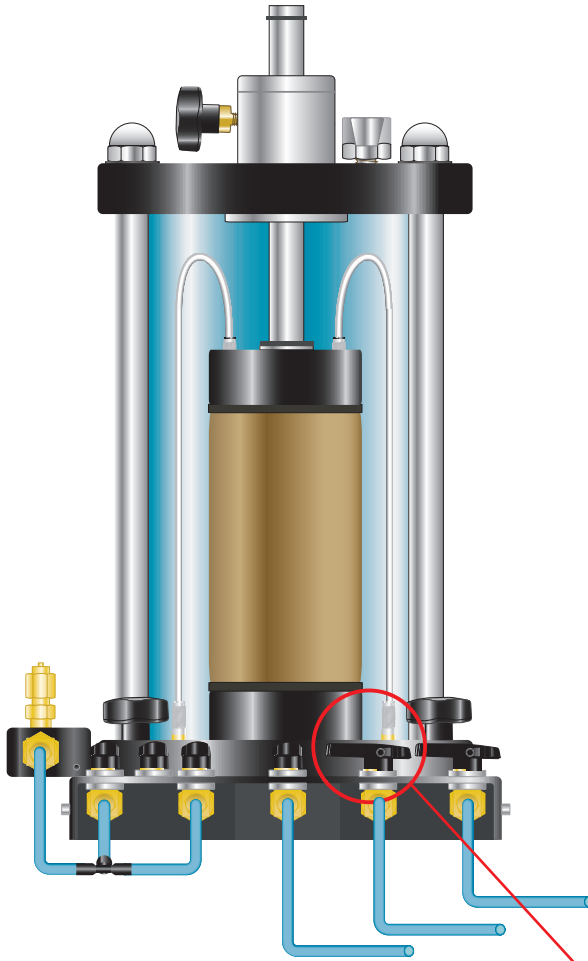


STEP 10

Check readout of Pressure Transducer attached to the De-airing Block on the Triaxial Cell. This should read approximately 20 psi.

10

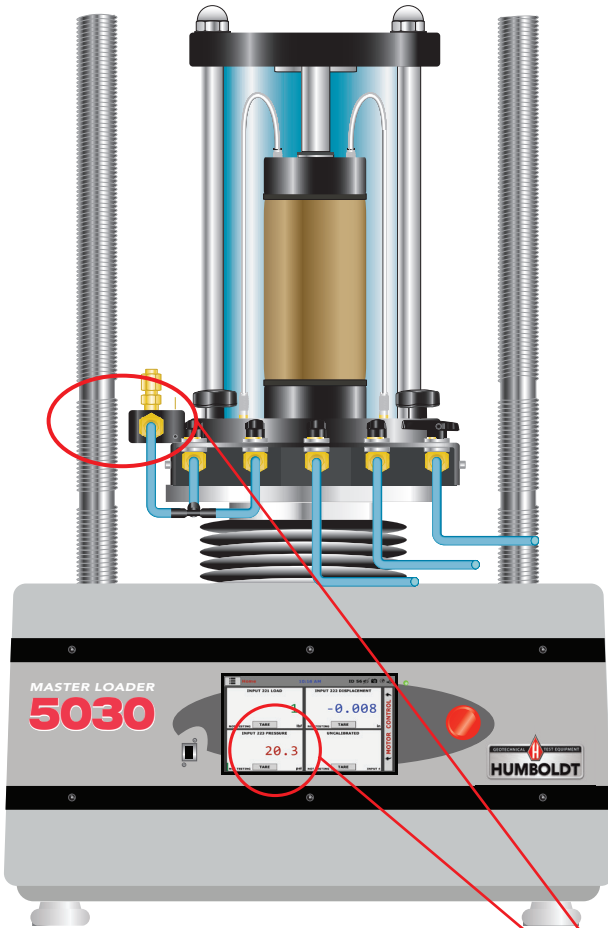
Be sure to allow sufficient time for this reading.



STEP 11

Close the Base Valve located on the right-hand side of the Triaxial Cell.

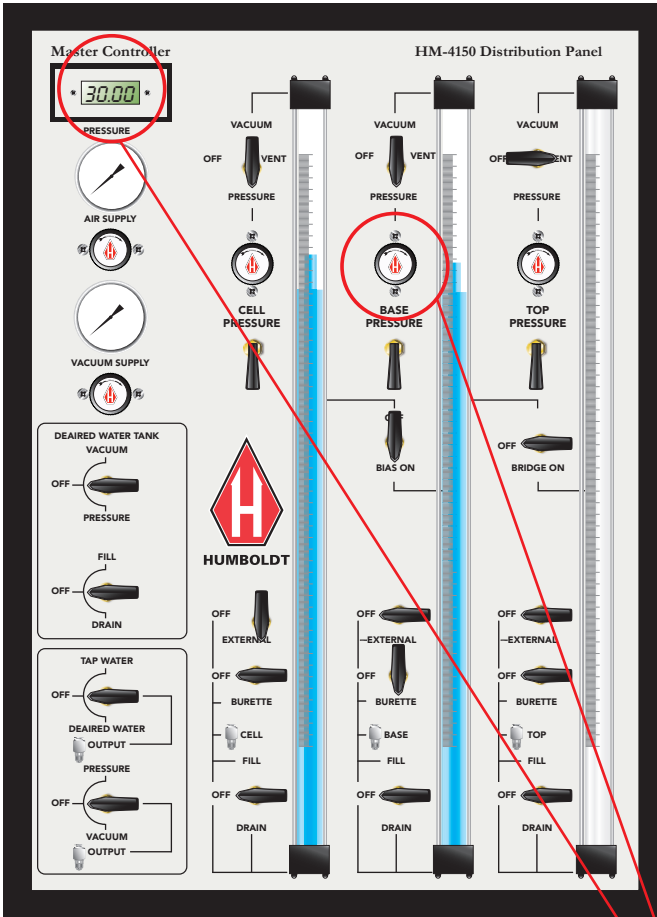
11



STEP 12

Record the Pore Pressure reading after approximately 1 minute.

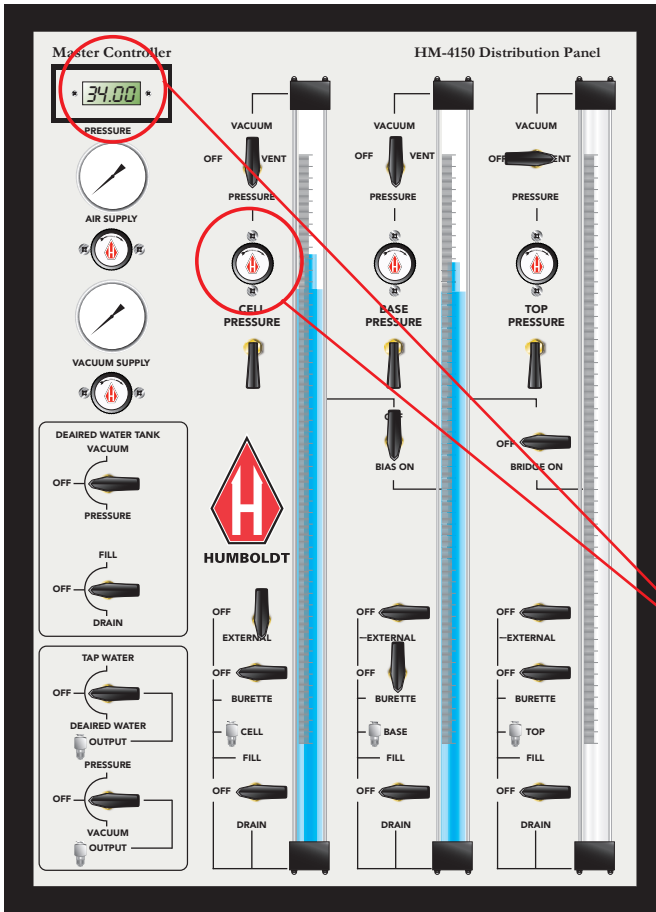
12



STEP 13

Flip the toggle below Base Pressure Regulator to the up position, then Adjust the Base Pressure Regulator to read 30 psi or to the next increment.

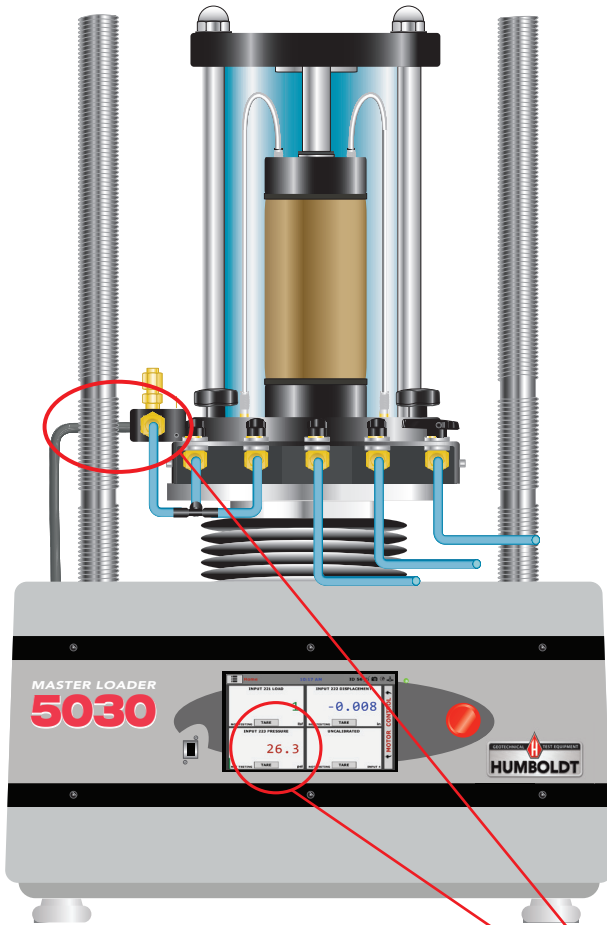
13



STEP 14

To check the resulting Cell Pressure in the Pressure window, flip the Base Pressure Toggle down and Flip the Cell Pressure toggle up. The Cell Pressure will be revealed. In this case, the Cell Pressure will read 33-35 psi (3-5 psi plus the next increment).

Be sure to allow sufficient time for this reading.



STEP 15

Record the Pore Pressure after approximately 2 minutes from the Pressure Transducer Readout.

15

STEP 16

Calculate the Pore Pressure Parameter B Value:

$$B = \Delta\mu / \Delta_3$$

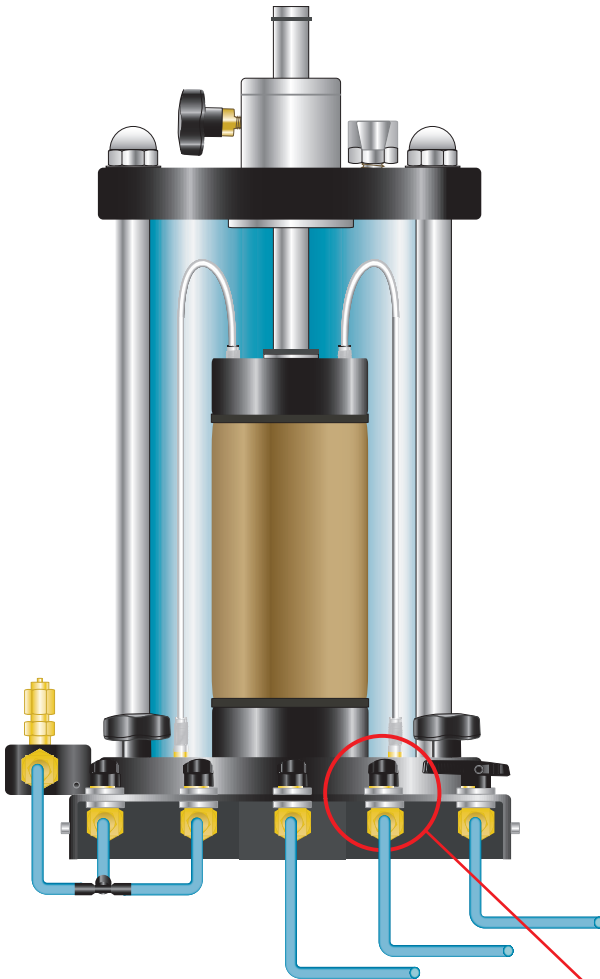
$$B = (26.3 - 20.0) / (30 - 20)$$

$$\mathbf{B = 0.63}$$

STEP 17

If the B Value is equal to or greater than 0.95 then the specimen is considered to be saturated.

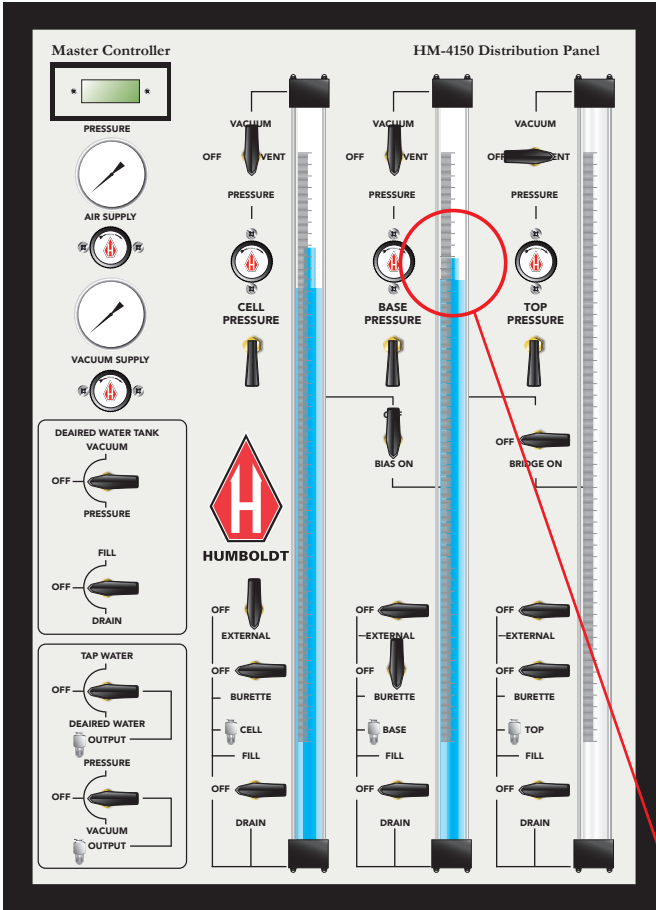
If it is not 0.95:



STEP 18

Open the Base Valve located on the right-hand side of the Triaxial Cell.

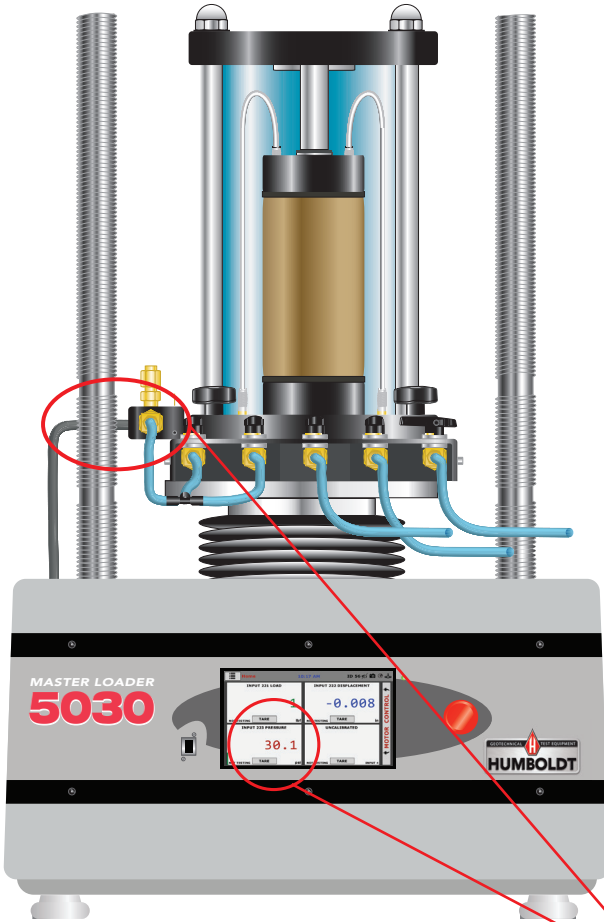
18



STEP 19

Record the Base Burette Level.

19



STEP 20

Readout of the Pressure Transducer should read approximately 30 psi.

20

Allow sufficient time for the pressure MASTER LOADER to stabilize.

STEP 21

Repeat this process (steps 9 through 20) while increasing the pressure by 5-10 psi for each stage.

STEP 22

Repeat this process (slides 11 through 17) while increasing the pressure by 5-10 psi for each stage.

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Humboldt Mfg. Co.
875 Tollgate Road
Elgin, Illinois 60123 U.S.A.

U.S.A. Toll Free: 1.800.544.7220
Voice: 1.708.456.6300
Fax: 1.708.456.0137
Email: hmc@humboldtmfg.com

