

Series 10000

CO₂ Gas Purity Tester

The Wittman CO₂ Gas Purity Tester is an improved absorption bottle designed to eliminate confusing cocks, hose connections, awkward manipulation and the usual caustic spillage. It makes gas testing simple, fool-proof, clean and highly accurate.

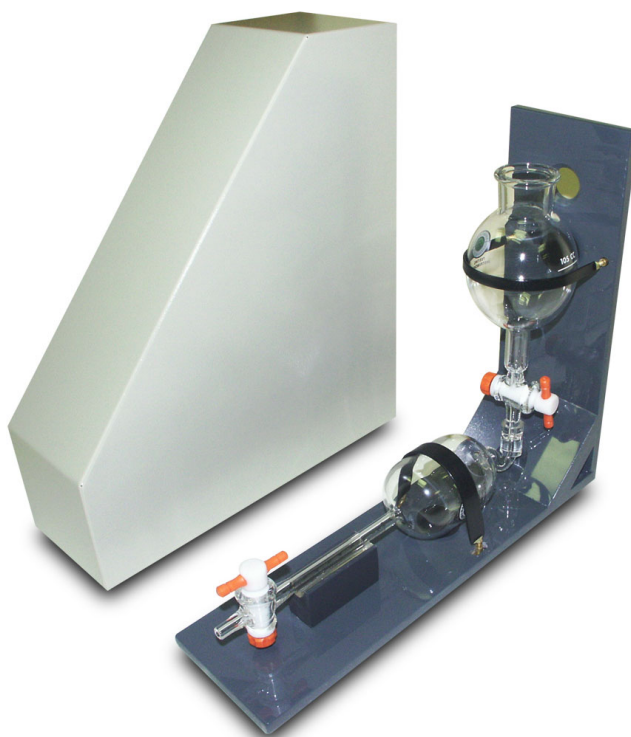
The Purity Tester consists of a caustic reservoir and calibrated absorption burette mounted to a PVC polished frame. The reservoir and burette are held to the frame with two neoprene covered mounting bands that are adjustable from the rear side of the frame. The absorption burettes are available in five different calibrations, with the standard burette graduated in tenths of one percent, the total being one percent of the volume of the burette. The caustic reservoir (10100) has a line indicating the level to which caustic solution should be added, which volume is slightly in excess of the capacity of the absorption burette. The line drawings should be used for identification of the Purity Tester parts. When inquiring about our gas purity testers, please specify which absorption burette you require.

Operating Instructions:

Caution: Caustic solution is used in the operation of this instrument. This solution may cause severe burns to the operator if not handled with care. Wear goggles and protective clothing while operating this instrument.

Preparation of Caustic Solution:

A 20% solution of either Potassium Hydroxide or Sodium Hydroxide is recommended for air testing*. To make a 20% solution slowly add 100 grams of Potassium or Sodium Hydroxide crystals to 500 cc's of distilled water and store in a sealed jar. The Hydroxide solution may also be purchased from any laboratory or chemical supply company. *A weaker solution may be used, but the tests will take longer and fewer tests can be performed.



OPERATING INSTRUCTIONS (continued)

To Operate:

1. Attach a hose from the CO₂ gas supply that is to be tested to the nipple of the absorption burette. Use care when attaching the hose so as not to break the calibrated stem of the absorption burette. If using the 1/100th calibrated burette (10102) place your finger on top of the stem and push gently downward onto the support block to prevent the stem from breaking when attaching the hose. Make sure that the gas supply is regulated to below 10 psi before releasing gas into the Purity Tester.
2. Open both cocks (5005) and allow the gas to sweep through the absorption burette and caustic reservoir to completely displace air in the glassware. If preferred, the bulb may be first filled with water and the water displaced with the gas to be tested.
3. After the sample has been taken, close the cock on the absorption burette first and then close the cock on the caustic reservoir.
4. Pour the caustic solution into the reservoir to the line indicated on the bulb (approximately 105 cc).
5. Open the cock on the caustic reservoir and allow the solution to flow down into the absorption burette. Absorption of the CO₂ gas now takes place until only air in the sample remains, the small bubble of which may be moved around by tilting the Purity Tester slightly, thereby insuring complete absorption of the gas.
6. Close the cock on the caustic reservoir and turn the instrument 90 degrees so that it rests on its other frame side. In this position, the unabsorbed gas enters the calibrated neck where the volume is directly indicated. The percentage purity of CO₂ gas is 99% plus 1/10 of 1% for each division as indicated by the level above the bottom graduation (Using the standard absorption burette #10101). There are our other types of absorption burettes available which are listed below.
7. After the test is completed, empty the caustic solution from the Purity Tester. Place the Purity Tester over a container and open both cocks to allow the caustic to drain out. Rinse out all traces of caustic with warm water and dry the glassware before returning the tester to its case.

Absorption Burettes Available

Part Number	Graduated In	Scale
10101	0.10%	99 to 100%
10102	0.01%	99 to 100%
10103	1.00%	70 to 99%
	0.20%	99 to 100%
10104	1.00%	50 to 100%
10105	0.10	95 to 100%