

Advance Laboratory Instruments & Supplies Co. LLC

“AL-SCrk26”

AUTOMATIC Stress Crack Tester for PET Bottles
w/ 26 Individual testing stations





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PET Bottles Stress Cracking Tester (26 stations) features:

- Modernistic bottle placement in three levels to optimize use of lab space.
 - Pilot Testing Chamber controls bottle volume and Chemical fill level for all bottles & chambers. To test different size bottles, the Pilot bottle is changed, and the necessary Chemical bath level set.
 - One of a kind individually enclosed bottle stations w/ engineered vent system. Vent system discharges pressure from bottle bursts to the rear of the equipment and away from the operator's working area.
 - Unique One-Push button start automatic equipment operations. Full and automatic water filling of each bottle and chemical solution in all test chambers, begins simultaneous pressurization and timer count for all bottle tests.
 - Operator is only responsible for replacing the bottles of each station in between tests and initiating the test procedure.
 - Each bottle testing chamber is capable of detection of cracks in its respective bottle. Once a bottle has failed the timer is stopped, water inside bottle and chemical solution outside of the bottle is vented to the waste tank for disposal. Water and Chemical solution from good, passing bottles will be recirculated to their respective tanks and reused during the next test.
 - Exclusive AdvanceLab sure-seal design, seals the bottle completely and without leaks. Long lasting seals eliminates frequent replacement of seals and less down-time.
 - The whole unit is built using stainless steel, or silicon rubber seal, or polycarbonate as the housing of each individual test chamber that are all very chemically stable and resistant.
 - Separate water and chemical tanks allow for recirculation and reuse of testing solution and water reducing costs and being more environmentally friend. All liquids from failed bottle tests will be automatically vented to waste tank.
 - Chemical solution propeller to keep Sodium Hydroxide solution properly mixed.
 - Full function PC with a touchscreen LCD display, USB port, LAN port.
 - Time adjustable to up to 30-days with hour and minute increments.
 - Accuracy of air pressure: +/- 1 PSI
 - Individual time Display for each of the 26 stations.
 - Programming and results can be stored in files such as MS Access, MS Excel.
- OPTIONAL : Settable water Temperature control keeps water & chemical in reservoir tank at a specific temperature to increase testing accuracy by preventing possible fluctuation or deviations of test results. (at extra costs)



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Benefits of the AL-SCrk26:

Safety:

Each individual testing chamber is made of a polycarbonate Polymer. This is a super high-strength polymer which is used in applications such as riot shields and even used for the Pilot Canopy of F-22 Raptor jets.

- This material has excellent strength and the same time **chemically resistant**. It is also the material the bank teller stations or the bank ATM machines use as bullet-proof shielding window for its' high resistance to cracking.
- We also have another built-in safety feature that vents all pressure in the testing chamber out of the rear portion of the test station chamber cover in case of a pressurized bottle bursting during testing. Any possibility of pressure and splash of chemicals will be vented away from the operator.
- Our AL-SCrk-26 is currently the only model of Stress Crackers in the world with this much attention placed on the operator's safety and well-being.

Automation:

- Each and every stations is controlled automatically by pressing one bottom to start the complete testing operation.
- After the empty bottle is placed inside the test Chamber, the top cover will closed and sealed, fresh water filled inside the plastic bottles, chemical solution filled into the outside of the bottle to the testing chamber, and all bottles are pressurized.
- Bottles which fail during testing set off a Fail Indicator light, and the station be shut off while other stations continue the testing.

Adaptability:

In addition, as the 26 stations Stress Cracking Tester is built in a 3-level configuration, the manager or the operator has the option to shut off any one or two levels and perform the testing using only one of the level, such as using only level 2, doing test of 8 bottles only, or shutting of the top 3rd level, doing test of 17 bottles only, etc.

In the event that any parts or components may become defective in any one or more station(s), the operator of the tester also has the ability to shut off not only a complete level as mention above, he can also choose to shut of the operation of any one single or multiple stations. The full test cycle can then continue without interruption and the necessary component replacement can be done at the end of the work day. Explaining this a little further, the operator has the ability to for example shut off test stations #3, and #17, and still using this equipment to do the whole testing procedure.

Operator / Environmentally friendly Features:

A central pilot station is used as the Pilot for guiding all the liquid movements in all the other 26 testing stations, filling of the fresh water into each of the bottles being tested, filling of the chemical solution into the testing chamber around and outside of each bottle, and after testing cycle is completed, to guide the removal of liquid inside the test bottle, and also the withdrawal of chemical solutions either back into the built-in chemical reservoir if bottle is not cracked, or be drawn into the waste storage tank. The fresh water inside the bottle is also returned to the fresh water tank if the bottle is not cracked. This ensure the testing operation is in line with current GREEN environmental practice, as well as reducing costs of operation.