

Technology and Art,
Dignity and Dynamics
impress customers at last.



 **ST-1002** Catalog

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⚡ ST-1000



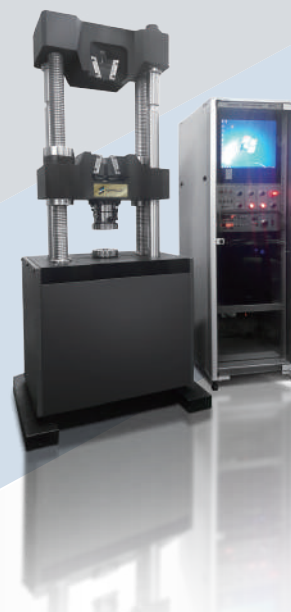
⚡ ST-1001



⚡ ST-1002

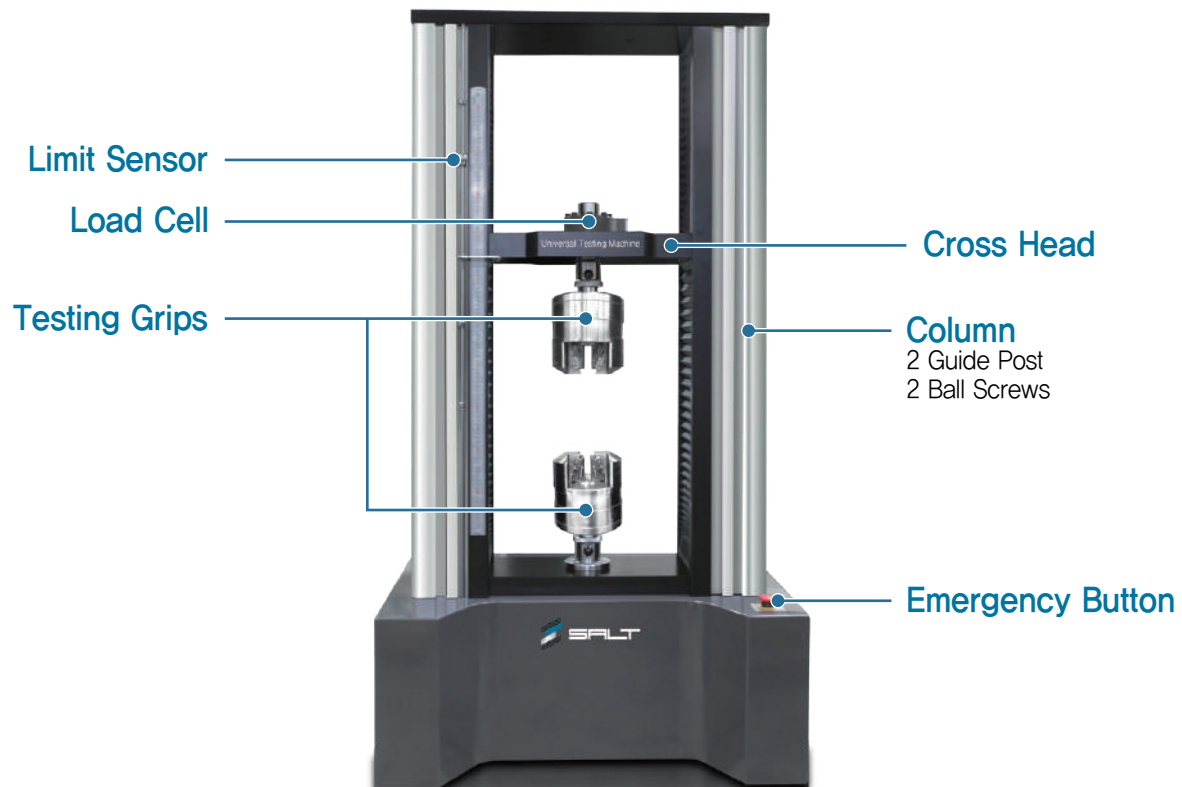


⚡ ST-1004



Universal Testing Machine

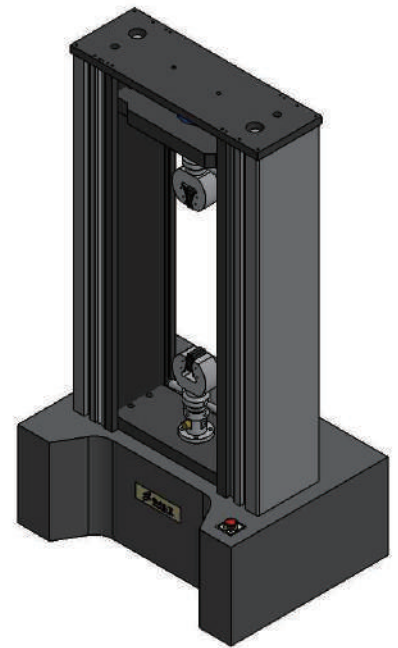
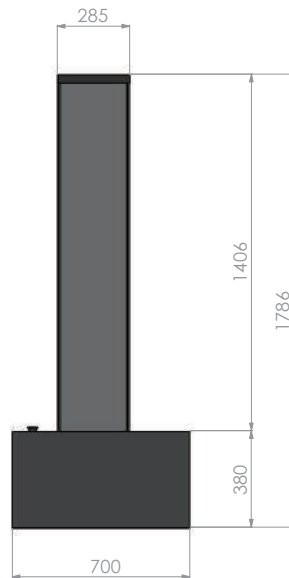
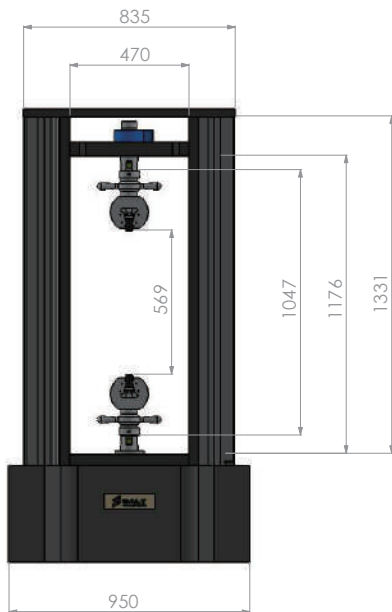
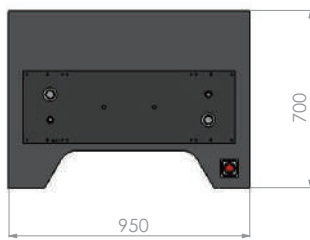
The ST-1002 is designed to serve the requirements of laboratories, research and development, quality control, manufacturers and educational fields. Hard plastics, metals, composites, wood, rope etc. are ideal specimens for the ST-1002. Tests such as tensile, compression, bending, peel, shear, puncture etc. are test methods available on the ST-1002



ST-1002 Features

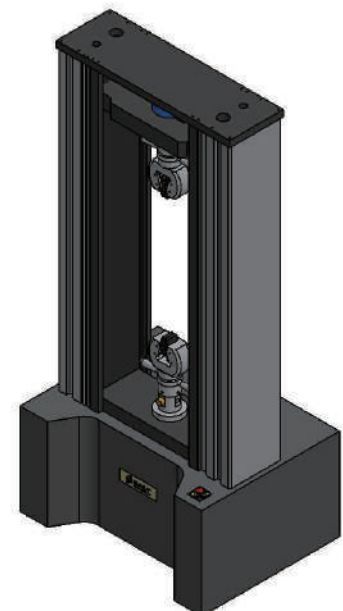
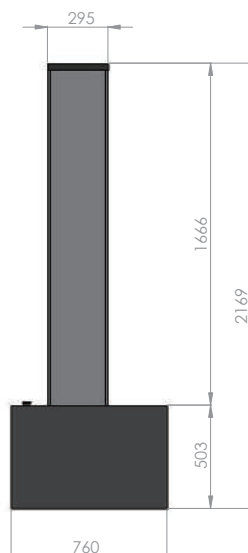
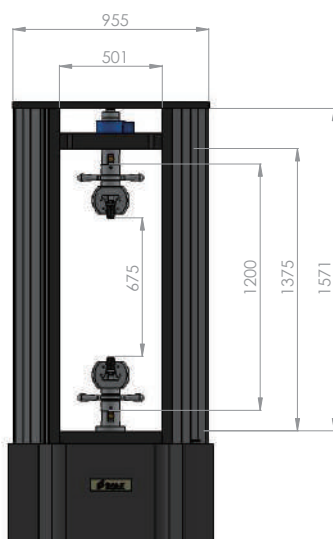
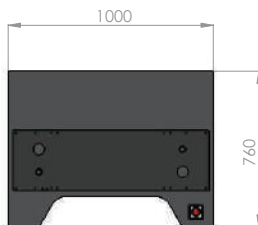
- ✓ Model capacity: 50kN~300kN
- ✓ Dual column electro mechanical floor standing model
- ✓ High precision load cell, class 1 and class 0.5 calibration
- ✓ 1/300,000 force resolution / 0.001mm/min speed accuracy
- ✓ 0.01~300mm/min speed (up to 1000mm/min option)
- ✓ 220V 60/50Hz Mitsubishi servo motor and drive
- ✓ Up to 4 step division of force capacity for more detailed readings
- ✓ Overload protection limit sensor, non-contact displacement limit sensor, emergency power cut off button

Product Specifications



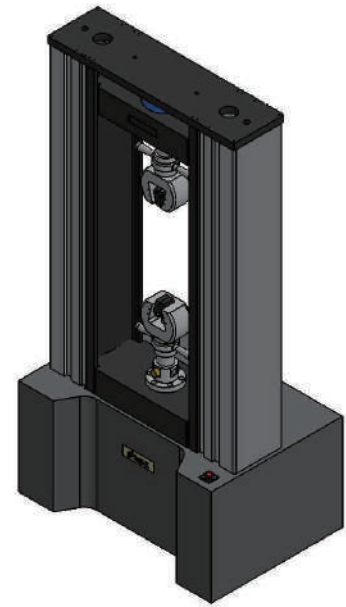
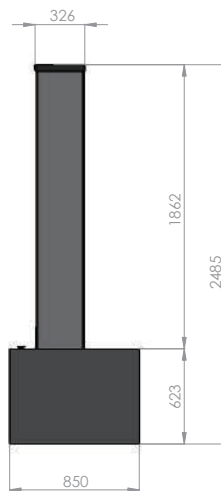
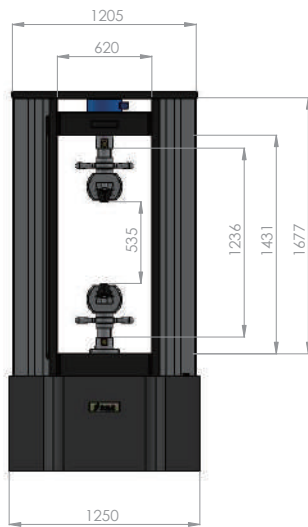
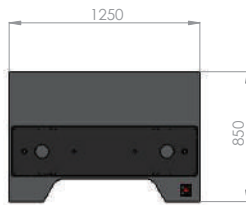
SALT

ST-1002 (50KN)
Universal Testing Machine



SALT

ST-1002 (100KN)
Universal Testing Machine

Product Specifications**SALT****ST-1002 (300kN)**
Universal Testing Machine



ST-1002

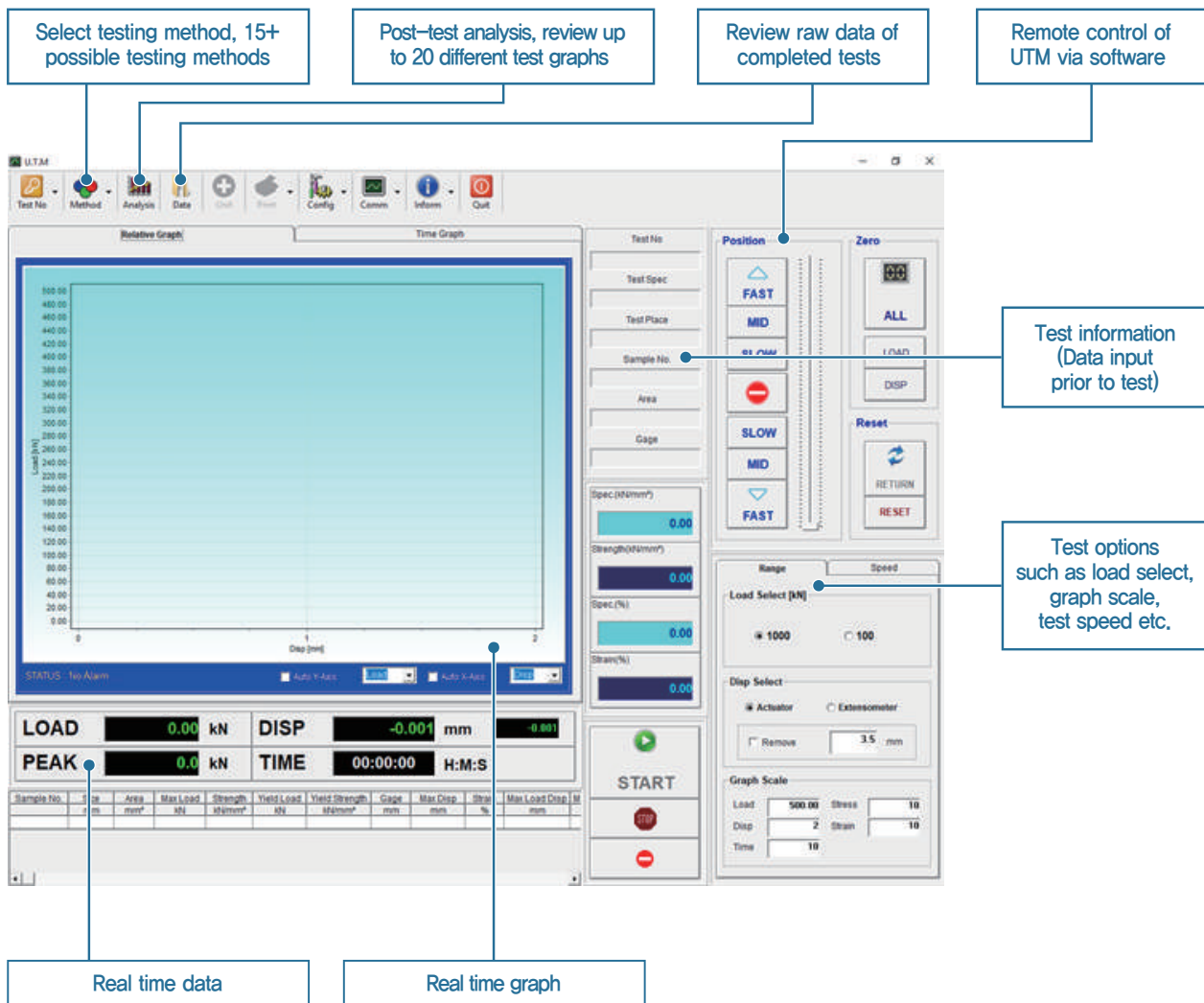
Universal Testing Machine
Capacity 30kN-500kN

Model	ST-1002		
Frame Capacity	30kN / 50kN	100kN	300kN
Loading Method	220V Servo Motor (Mitsubishi) electromechanical		
Load Accuracy	$\pm 0.5\%$		
Calibration	Class 1 / Class 0.5		
Force Resolution	1/300,000		
Stroke resolution	$\pm 0.001\text{mm}$		
Test Room (WxH mm)	470 x 1040	500 x 1200	620 x 1230
Total Weight (Approx.)	600kg	1200kg	1500kg
Force Range	Up to 4 Steps		
Column	Dual		
Controller	LCD Digital Indicator, Force control, Position control		
Transfer Screw	Ball Screw / Guide bar		
Crosshead Speed	0.01mm ~ 500mm/min (1000mm/min max optional)		
Speed accuracy	0.01mm/min		
Driving System	Mitsubishi Servo Motor & Server Driver (Japan)		
Safety Device	Up limit, Down Limit, Load limit, Stroke Limit, Emergency stop		
Power Supply	AC 220V / 50,60Hz	AC 220V, 3PH / 50,60Hz	
Dimension (W x D x H mm)	950 x 700 x 1900	1000 x 760 x 2200	1250 x 850 x 2500
Computer Software OS	Windows, Light-Salt UTM Software Version 12,6,0		
Extensometer	Encoder type, Strain gauge type, Position meter type (Optional) ETC.		
Environmental Chamber	Temperature control -100°C ~ $150^{\circ}\text{C}+$ (Optional)		
High temperature furnace	Room temp. ~ 1200°C (Optional)		

Light-Salt Testing Software

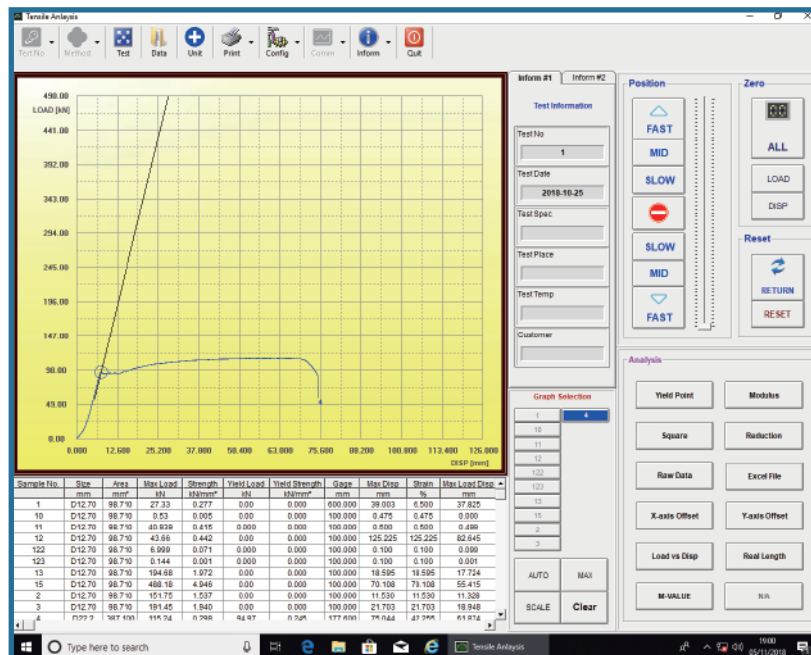
- ✓ Light-Salt testing software, close loop. Control of load, displacement, extension, stress and strain.
- ✓ Remote control via software, text execution, data analysis available through industrial comm port.
- ✓ Software updates and modification installation available via email or remote support.

Software main screen



Light-Salt Software exclusively for the ST-1000 Series enables users to find the intrinsic characteristics of various materials - such as stress, strain, modulus, yield point etc. These are the main measures of material property tests such as tensile, compression, flexural, cyclic, fatigue etc. Software can be modified for special tests and measurements upon user's requirements and may be analyzed post-test.

Test Analysis Screen



- ✓ Diverse and robust configurations for automatic test end options, graph options, PID values, crosshead movement speeds etc.
- ✓ 15+ different Testing Methods including cyclic, creep, relaxation, keeping etc.
- ✓ View data and graphs of previously ran tests
- ✓ Determine and analyze data points such as yield point, breaking point, modulus etc.

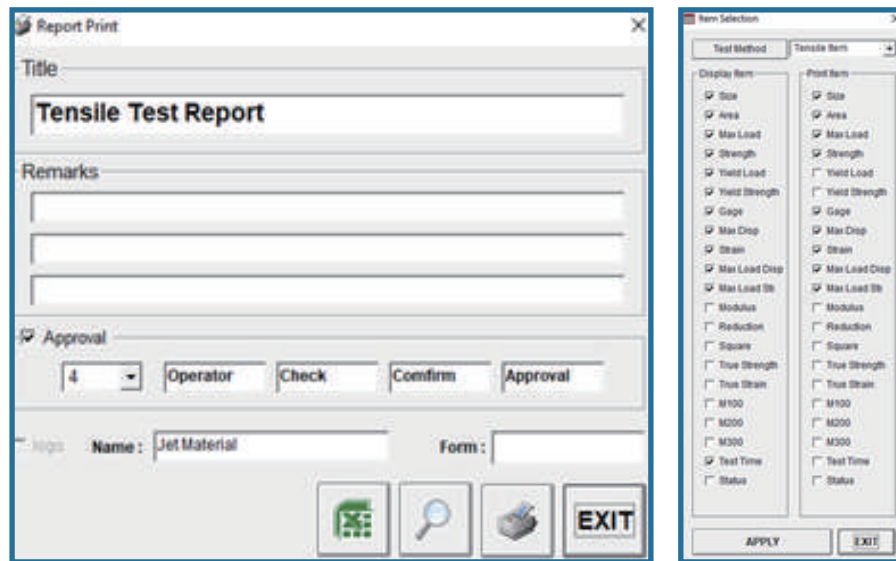
Device Configuration

The screenshot displays the 'Test Configuration' window with the following settings:

- Test End Option:** Control
- Graph:** Keeping / Cyclic Test
- Move Speed:** Capacity
- Point:** Device
- Indicator Selection:**
 - ☐ Usersys-430 ☐ Usersys-FND ☒ Pulun System ☐ P/ES-500A ☐ MT-2013
 - 430LCD ☐ D-200 ☒ Master Mode
- Test Method Selection:**
 - ☒ Tensile ☒ Compression ☒ Bending [3Point] ☐ Bending [4Point] ☐ Cyclic ☒ Keeping
 - ☐ Insulator Comp. ☐ CBR ☐ Ring Stiffness ☐ Tearing ☐ Indirect Tensile ☐ Tile Bending
 - ☐ Marshall ☐ Strain Comp. ☐ Poisson Ratio
- Test Direction:**
 - ☒ 1Way ☐ Both ☐ Down
- Power Type:**
 - ☐ Mech. ☐ Up ☐ Single ☒ Double
- Function:**
 - ☒ Series Test ☐ Non Zero
 - ☒ Ind. Tare ☐ Ind. Return
 - ☐ Calibration ☐ Rem GripLoad
 - ☐ Test Mode ☐ Load Control
- Auto/Manu:**
 - ☒ Auto ☐ Manu
- Load Sensor:**
 - ☒ Loadcell ☐ Presscell
- Elongation:**
 - ☒ Use ☒ Remove
- Ind. Screen Saver:**
 - ☐ Use min
- Strain Rate Control:**
 - ☐ Use ms ms
- 485 Term:**
- COM No.:**
- Baud Rate:**

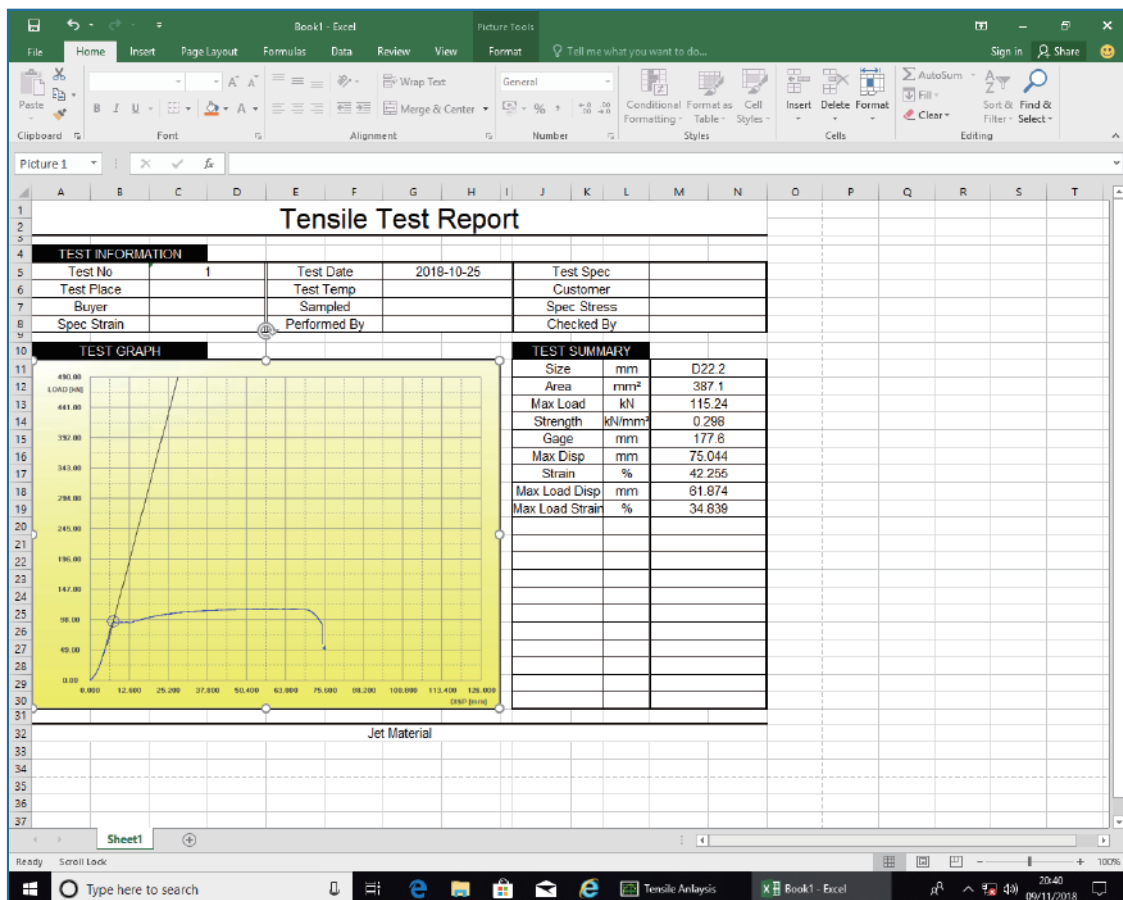
Light-Salt Testing Software

Test report print options



- ✓ Test report printing options include direct to printer or excel file export.
- ✓ Test report data can be configured to show only necessary data and to exclude unused data.

Export to Excel



Raw data

Data Point View

Raw Data

No.	Time [sec]	Load [kN]	Disp [mm]	Strength [kN/mm²]	Strain [%]	True Strength [kN/mm²]	True Strain [%]
43716	779.149	352.20	10.377	3.568	10.377	3.938	2.432
43717	779.163	352.21	10.377	3.568	10.377	3.938	2.432
43718	779.179	352.22	10.377	3.568	10.377	3.939	2.432
43719	779.191	352.22	10.378	3.568	10.378	3.939	2.432
43720	779.197	352.23	10.378	3.568	10.378	3.939	2.432
43721	779.211	352.24	10.378	3.568	10.378	3.939	2.432
43722	779.233	352.25	10.378	3.569	10.379	3.939	2.432
43723	779.251	352.25	10.378	3.569	10.379	3.939	2.432
43724	779.257	352.26	10.379	3.569	10.379	3.939	2.432
43725	779.271	352.27	10.379	3.569	10.379	3.939	2.432
43726	779.293	352.28	10.379	3.569	10.379	3.939	2.432
43727	779.295	352.28	10.380	3.569	10.380	3.939	2.432
43728	779.307	352.29	10.380	3.569	10.380	3.939	2.432
43729	779.329	352.30	10.381	3.569	10.381	3.940	2.432
43730	779.348	352.31	10.381	3.569	10.381	3.940	2.432
43731	779.365	352.32	10.382	3.569	10.382	3.940	2.432
43732	779.384	352.33	10.382	3.569	10.382	3.940	2.432
43733	779.401	352.33	10.382	3.569	10.382	3.940	2.432
43734	779.408	352.34	10.383	3.569	10.383	3.940	2.432
43735	779.428	352.35	10.383	3.570	10.383	3.940	2.432
43736	779.444	352.35	10.384	3.570	10.384	3.940	2.432
43737	779.449	352.36	10.384	3.570	10.384	3.940	2.432
43738	779.474	352.37	10.384	3.570	10.384	3.940	2.432
43739	779.480	352.37	10.385	3.570	10.385	3.940	2.432
43740	779.500	352.38	10.385	3.570	10.385	3.941	2.432
43741	779.516	352.38	10.385	3.570	10.385	3.941	2.432
43742	779.521	352.39	10.386	3.570	10.386	3.941	2.432
43743	779.545	352.40	10.386	3.570	10.386	3.941	2.432
43744	779.564	352.41	10.386	3.570	10.386	3.941	2.432
43745	779.580	352.41	10.386	3.570	10.386	3.941	2.432
43746	779.584	352.42	10.387	3.570	10.387	3.941	2.432
43747	779.603	352.42	10.387	3.570	10.387	3.941	2.432
50024	1124.609	461.31	66.618	4.673	66.618	7.797	4.214


View Rate [Hz] Count 96474 / 96474 File Direct Conversion

STOP All Copy Cell Copy Excel File Text File Exit

- Raw data analysis for detailed test data
- Exportable to excel and customizable to show user required data

Uniform calibration with keeping test method

Calibration uniformity worldwide



Precise and accurate input and output

WHY Customers Select SALT Products?

The keeping test function of Salt Co.'s software is not only for recording data and testing, but it can be used for world wide uniformity during calibration.

Calibration of any U.T.M is necessary as it must be precise and accurate when measuring and recording data. The keeping test method makes calibration easy and uniform. No matter where the machine is calibrated or who does the calibration, the keeping test method ensures no variation from the machine so the calibrator can do their jobs more efficiently.

- Keeping test calibration method for easier uniformity when calibrating Salt Co., UTMs.
- Keeping test is the basis for creep test and relaxation test method.
- Over 15 different testing methods including tensile, compression, bending, keeping, tearing, CBR etc.
- All UTMs go out with a KOLAS Class 1 / Class 0.5 calibration. Yearly calibration can be done from anywhere internationally with this method.

Art

dignity

Technology and Art,
Dignity and Dynamics,
impress customers at last.

**The Company like the Light
and Salt of the World**



Technology

dynamic



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