

COMPUTER CONTROLLED TEST STAND 700 SERIES

The advanced 700 Series Universal Test Systems are ball screw driven test stands, excellent for affordable, precision tensile and compression testing of a wide variety of materials or products. These variable speed testers have increased speed ranges and include adjustable travel limit switches. With the unique dual testing area, users can setup for two tests, tensile and/or compression, without having to switch out fixtures.

Sturdy ball screw drives allow for smoother operation and precise positioning. Stands include the ComTouch Total Control system on reverse side. These systems benefit from supporting a wider range of load cell capacities than other Com-Ten systems.

Features:

- Capacity up to 20,000 lb
- Force units: lb, kg, N, g, oz
- Force accuracy: +/- 0.5% full scale
- Force resolution: 1/16000 full scale
- **Automatic recognition of the USB and ULP series load cells**
- Sample rate: 100/ second
- Display rate: 4/ second
- Overload protection
- **Peak hold feature: force & deflection**
- Deflection units: in, mm, cm
- Deflection accuracy: +/- .008 in (0.2mm)
- Displacement resolution: 0.01 in (0.25mm)
- High speed return with ability to set pause time for auto return
- Drive control: DC variable speed motor with dynamic brake
- **Automated test stand control with ComTouch Total Control**
- Digital speed readout (in/min, mm/min, cm/min)
- Speed accuracy: +/- 2.0% of reading
- DATA OUTPUT: analog & serial force/deflection or optional software
- Travel limits manually adjustable upper & lower magnetic limit switch
- Power requirement: 110 V, 50-60 Hz

Options:

- Report printer
- Safety guard to protect from breaking sample
- C-TAP testing software for advanced test stand control, saving configuration, graphing and reporting...



Two solutions to drive our 700 series test stand



Basic setting
with our touch
screen
ComTouch
controller



Advanced and
automated
settings with
our optional
CTAP software

Build your own:

1. Before building your own 700 test system, you need to determinate the following parameters:

- Minimum and maximum force to measure
- Range of speed
- Size of the sample and elongation

2. Then choose from the chart below the frame which is corresponding to your tests.

Part Number	702SN	702TN	705SN	705TN	710SN	710TN	720SN	720TN
Capacity	2000 lb (8896N)	2000 lb (8896N)	5000 lb (22241N)	5000 lb (22241N)	10000 lb (44482N)	10000 lb (44482N)	20000 lb (88964N)	20000 lb (88964N)
Travel	36" (990mm)	48" (1220mm)	36" (990mm)	48" (1220mm)	36" (990mm)	48" (1220mm)	36" (990mm)	48" (1220mm)
Working width	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)	18" (460 mm)
Speed range in/min	0.6 - 30	0.6 - 30	0.3 - 15	0.3 - 15	0.3 - 15	0.3 - 15	0.16 - 8	0.16 - 8
Test stand dimension W x H x D (in)	37 x 61 x 25	37 x 73 x 25	37 x 61 x 25	37 x 73 x 25	37 x 61 x 25	37 x 73 x 25	37 x 61 x 25	37 x 73 x 25

3. Add the load cells you need to keep the accuracy required for all the range of tests you have. Load cell should only operate in the mid 80% of the load cell range. i.e., a load cell with a 1000lbs capacity should be used between 100 and 900 lbs.



USB series S-Block load cell

ULP series low profile load cell

Available load cells USB & ULP for 700 series

Part number		Capacity lb (N)	Resolution lb	System accuracy lb
USB0010	ULP0010	10 (45)	0.01	0.05
USB0020	ULP0020	20 (90)	0.01	0.1
USB0050	ULP0050	50 (225)	0.01	0.25
USB0100	ULP0100	100 (450)	0.1	0.5
USB0200	ULP0200	200 (900)	0.1	1
USB0500	ULP0500	500 (2250)	0.1	2.5
USB1000	ULP1000	1000 (4500)	1	5
USB2000	ULP2000	2000 (9000)	1	10
USB5000	ULP5000	5000 (22500)	1	25
USB10000	ULP10000	10000 (44482)	10	50
USB20000	ULP20000	20000 (88964)	10	100

4. And finally choose from our wide range of grips the best for your application.



If you have different load cells or grips, you can add to your stand a quick disconnect. More than earning time between two tests, it provides excellent **self-alignment** and load distribution for more accurate measurements during tensile tests.