ForceMeasurement

AUTOMATED CALIBRATION PRESSES

ISO 9001:2000 Registered

Features

- Hands-free operation and computer-driven applied loads - no manual arbor methods
- Long-term stability of applied loads
- Controls prevent overloading and hysteresis error
- System stores data for the master load cell
- System enables use of multiple master load cells
- Load cell is calibrated directly at National Institute of Standards and Technologies and shipped with a full test report (optional)
- Computer consoles consist of PC with monitor, keyboard, mouse and contained within lockable storage cabinet on wheels

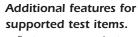
System Description

The AC-CSA Automated Calibration System consists of a force calibration frame, hydraulic power system, master load cell, control box, and computer with precision interface circuitry.

The computer controls the hydraulic system, serves as an indicator for the master load cell output and records all required data.

The test force is applied using a computer-driven hydraulic power system to precisely apply and maintain loads. The output from the master load cell is monitored to form a servo loop to further refine control of the hydraulic power system, allowing superb accuracy and stability.

The software communicates directly with Intercomp scales containing an RS485 interface. The software obtains scale data, updates the calibration settings, records all values and stores all associated scale information.

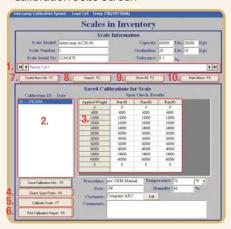


- System communicates directly with Intercomp scales by transmitting an information request to the scale, reads the response and records values and critical data necessary for full calibration verification and adjustment
- Simultaneous display of the applied force and scale readout
- Data for each calibration is transmitted to the computer and stored for recall at a later date
- System has ability to generate a calibration report
- The user is able to specify the loads to be applied to the scale in units of force



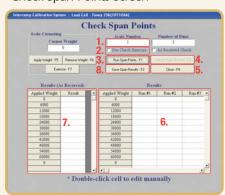


Calibration Jobs Screen



- 1. Used to browse saved jobs.
- Saved span runs.
- Results of highlighted saved span run.
- Opens "Check Span Points" screen.
- 5. Opens "Calibration Screen"
- 6. Prints the calibration certificate
- Starts a new calibration job.
- 8. Opens screen to search past jobs.
- Shows all jobs after search.
- 10. Returns program to main menu

Check Span Points Screen



- The number of the scale being tested.
- The number of the scale being tested.
 Used if you want to save a run as a pre-calibration check.
- Starts the span checking routine.
- Aborts the span checking while it is running.
- Takes program back to the jobs screen.
- 6. The results of the last span run.
- Shows the pre-calibration results if there are any saved.
- 8. Saves the current span results to the database.

Calibration Screen



- 1. The number of calibration points for the scale being calibrated.
- 2. The weight for each point you want the press to apply to the scale.
- The weight for each point you want the press to apply to the scale.The weight you want the scale to read when the specified force is applied to the scale.
- 4. Applies the specific weights to the scale and sends commands to the scale to accept the calibration.
- 5. Aborts calibration run while it is running.
- 6. Displays current settings of the scale.
- 7. Takes the software back to the scale inventory screen.

Performance Specifications

Operating

Temperature: 50 to 122 degrees F (10 to 50 degrees C)

Capacity: 1,000 lb to 100,000 lb (450 kg to 45,000 kg)

Accuracy: Min 4:1 Ratio as per ASTM E-74. Each system specific

to NIST Test Report.

Stability: Maximum drift one display

division over 60 seconds.

Time to valid reading

after full scale

command change: Maximum 8.5 seconds

Serial Communication: RS485 Serial Interface. System communicates

with Intercomp scales.

Scale Calibration: System automatically exercises scale, applies

1 to 5 specified calibration points, and sends a command to scale to set each calibration point.

Time for full stroke

ram travel: 42 seconds down; 33 seconds up; User may

configure a stop position within ram travel to

reduce return time.

Physical Specifications

Ram Travel: 7 inches (178 mm)

Test Item

Working Height: 2-7 inches (50-178 mm)

Power Requirements: 208-230 Volts 3 phase 60Hz 10 amps;

110-220 @ 2 amps for control electronics

Pump Motor: 2 horsepower

AC-CSA (45.5" x 54.5") (Standard Model)

Shipping Weight: 3,900 lb (1,800 kg)

Table surface/

working area: 45.5" x 54.5" (1155 x 1384 mm);

Ram is centered over surface area;

Surface area is 1 inch (25 mm) thick steel plate.

AC-CSA (30" x 36") (Compact Model)

Shipping Weight: 3,400 lb (1,600 kg)

Table surface/

working area: 30" x 36" (762 x 914 mm);

Ram is centered over surface area; Surface area is 1 inch thick steel plate.

Crated Shipping

Dimensions: 73" x 53" x 77" (1854 x 1346 x 1955 mm)

Specifications are subject to change without notice.





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