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## Automatic Marshall Stability Test Machine ZI 4023

Standards: EN 12697-34, 12697-23, 12967-12,  
ASTM D1559, D5581, D 6927; AASHTO T245

Specification:

**Automatic Marshall Stability Test Machine** or **Digital Marshall Testing Machine** is a fully automated PC controlled Marshall tester. The 50 kN capacity Automatic Marshall Stability Test Machine is used to determine the maximum load and flow values of bituminous mixtures. The machine comprises of a robust and compact two column frame with adjustable upper cross beam. The unit is a bench mounting compression frame with motor and worm gear housed within the base unit. The speed of the lower platen can be adjusted between 6 mm/min to 60 mm/min using the data acquisition and control unit. For safety, the up and down travel of the lower platen is limited the use of limit switches. Rapid adjustment of the platen is controlled using the up and down buttons on the front panel of the machine. The machine can be hand operated by a lateral hand wheel for calibration purposes.

The measuring system consists of a 50 kN capacity strain gauge load cell fitted to the upper cross beam to read stability values and the 25 x 0.001 mm linear potentiometric displacement transducer fitted to the breaking head. The Automatic Marshall Stability Machine is suitable for testing 6" dia. 4" dia. specimens conforming to ASTM D5581



## **The Automatic Marshall Stability Test Machine is supplied complete with:**

- Load cell, 50 kn
- Linear potentiometric displacement transducer with bracket, 25 x 0.001 mm
- PC software
- Connection cable
- Hand wheel for manual control
- Breaking head, 4

## **Automatic Marshall Testing Machine Features:**

- Automatically calculates flow and stability values
- Can make test with displacement and limited load control
- Real time display of test graph.
- CPU card with 32-bit Arm RISC architecture
- Permanent storage capacity up to 10000 test results.
- 4 analog channels, 2 channels are active for marshall test
- Programmable digital gain adjustment for load-cell, pressure transducers, strain-gauge based sensors, potentiometric sensors, voltage and current transmitters
- 1/256000 points resolution per channel
- 10 data per second sample rate for each channel
- Ethernet connecting for computer interface
- 800x480 resolution 65535 color TFT-LCD industrial touchscreen
- 4 main function keys
- Multi-language support
- 3 different unit system selection; kn, ton and lb
- Real-time clock and date
- Test result visualization and memory management interface
- Remote connection through ethernet
- USB flash disc for importing test results and

for firmware

- USB printer support for inkjet and laser printers (ask for compatible models)
- Camera support for real-time video recording during test (ask for compatible models)
- Free of charge PC software for the test control and advanced report generation