

Kershaw Instrumentation Inc.

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Technical Bulletin : B5 -Roll Density Tester Computer Interface Description

Introduction

This system features a data acquisition system that connects your Roll Density Tester (Model RDT-2000) to a standard PC. No modifications or interface boards are required to operate this system thus the system can be operated from a desk top or lap top computer running under any windows platform. The system monitors the force and displacement data and allows the operator to generate penetration and recovery curves graphs automatically.

Projects

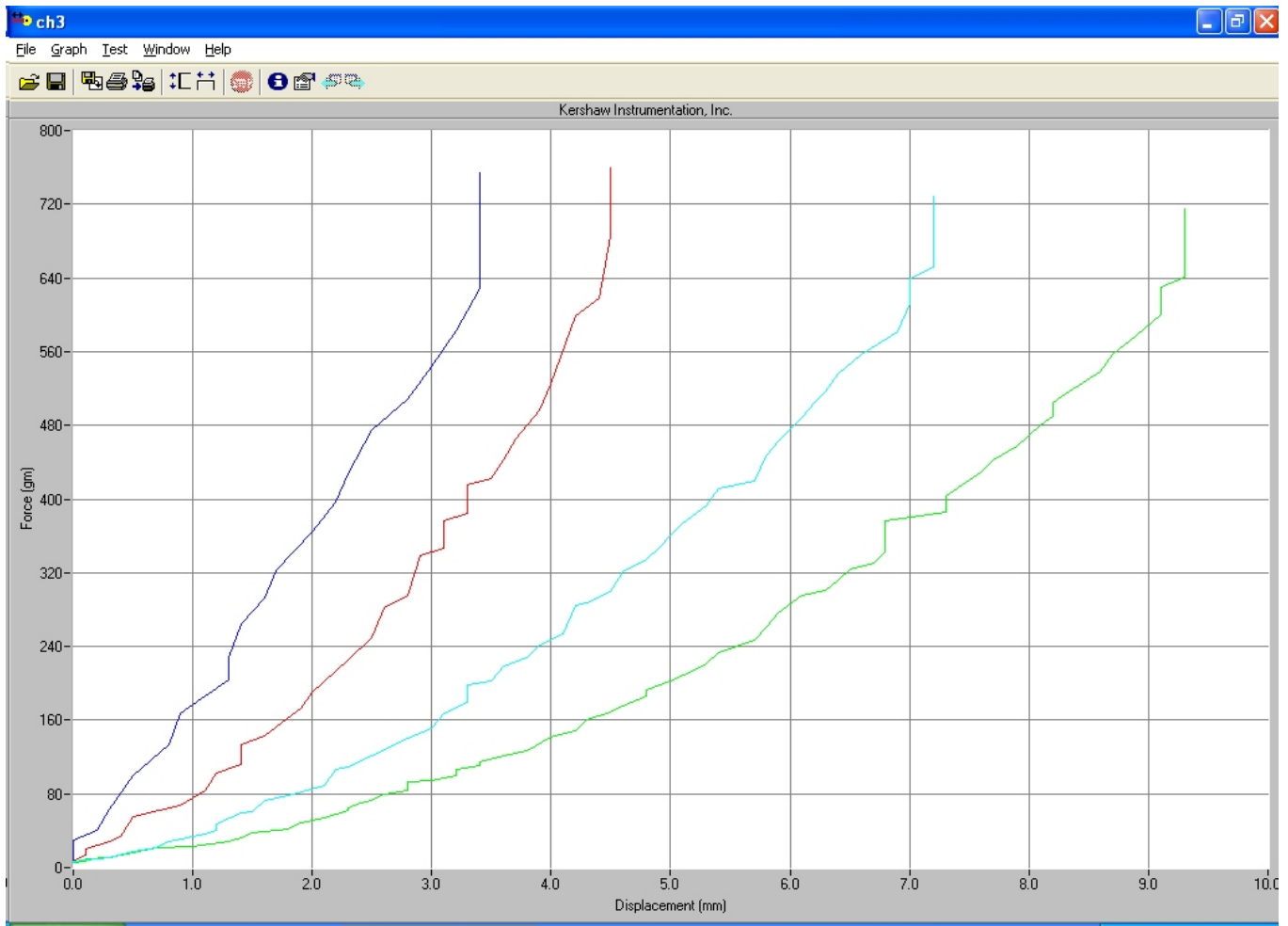
This system feature "Projects" which allows the operator (or multiple operators) to tailor the test procedure and the graphic display to suit their particular needs. Many of these projects can be generated and stored in the project data base and used as desired.

Operation

Upon running a test the data acquisition system captures the force and displacement data real time and displays the results on the graph. After the test is complete the operator has the option to save he data for future use.

Typical Graphs

Below are several examples of typical graphs generated on a RDT-2000 using several different brands of rolled products.



Brand Comparison Test (compression only)

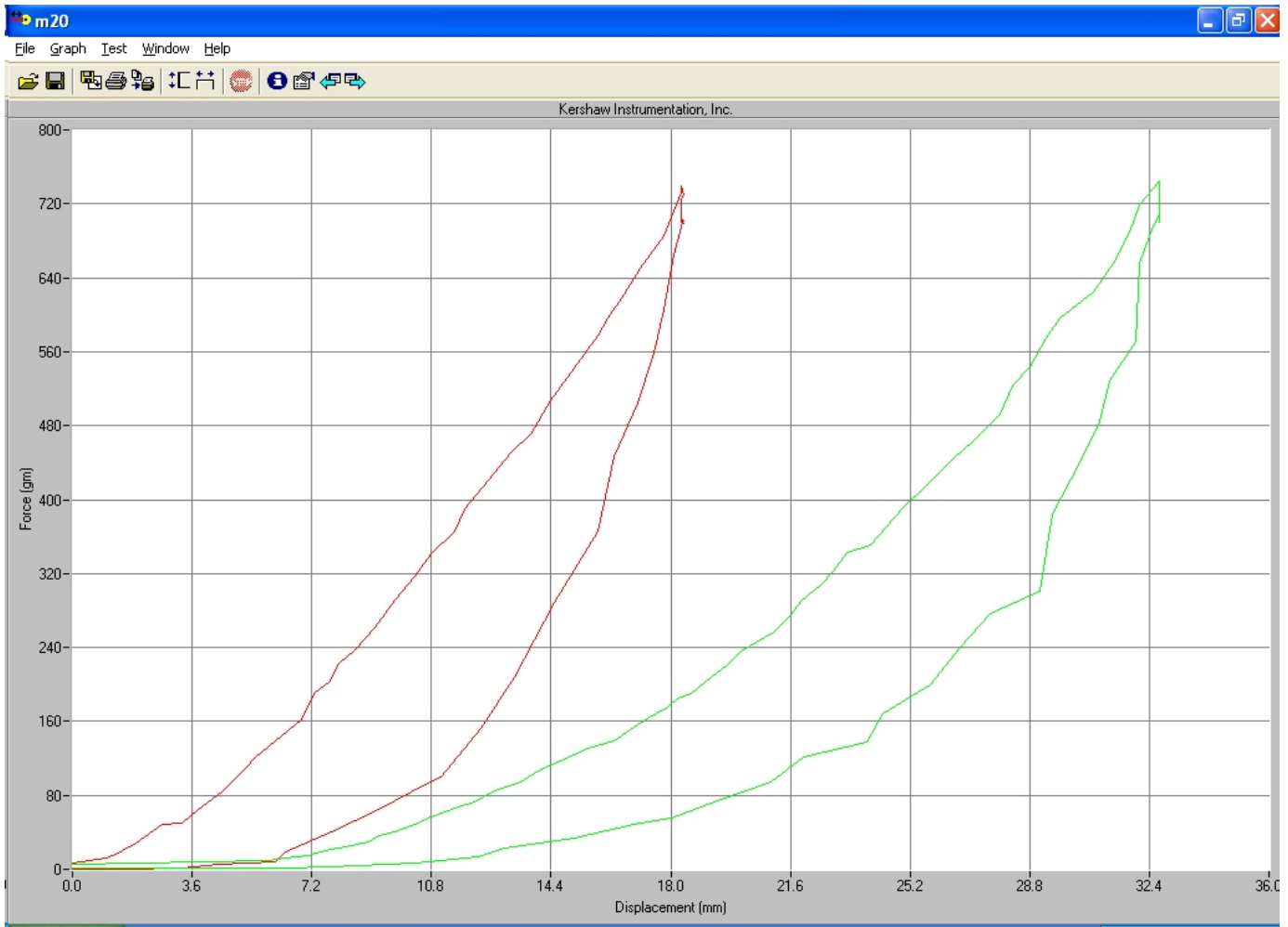
The graph above shows the results of the Roll Density results of 4 different brands. These brands are as follows:

Blue Plot: Scott Brand (5.0 inch dia.)

Red Plot: Charmin (4.0 inch dia.)

Teal Plot: Quilted Northern (4.0 inch dia.)

Green Plot: Eckert Brand (4.0 inch dia.)



Brand Comparison Test (compression and recovery)

The graph above shows the results of the Roll Density results of 2 different brands. These tests show the results both in compression and during the recovery phase of the test.

Red Plot: Marcal (5.0 inch dia.)

Green Plot: Quilted Northern (4.0 inch dia.)



Repeatability Test

The above graph shows 4 tests run on the same roll at 90 degree increments. This test determines the symmetry of the Roll firmness.