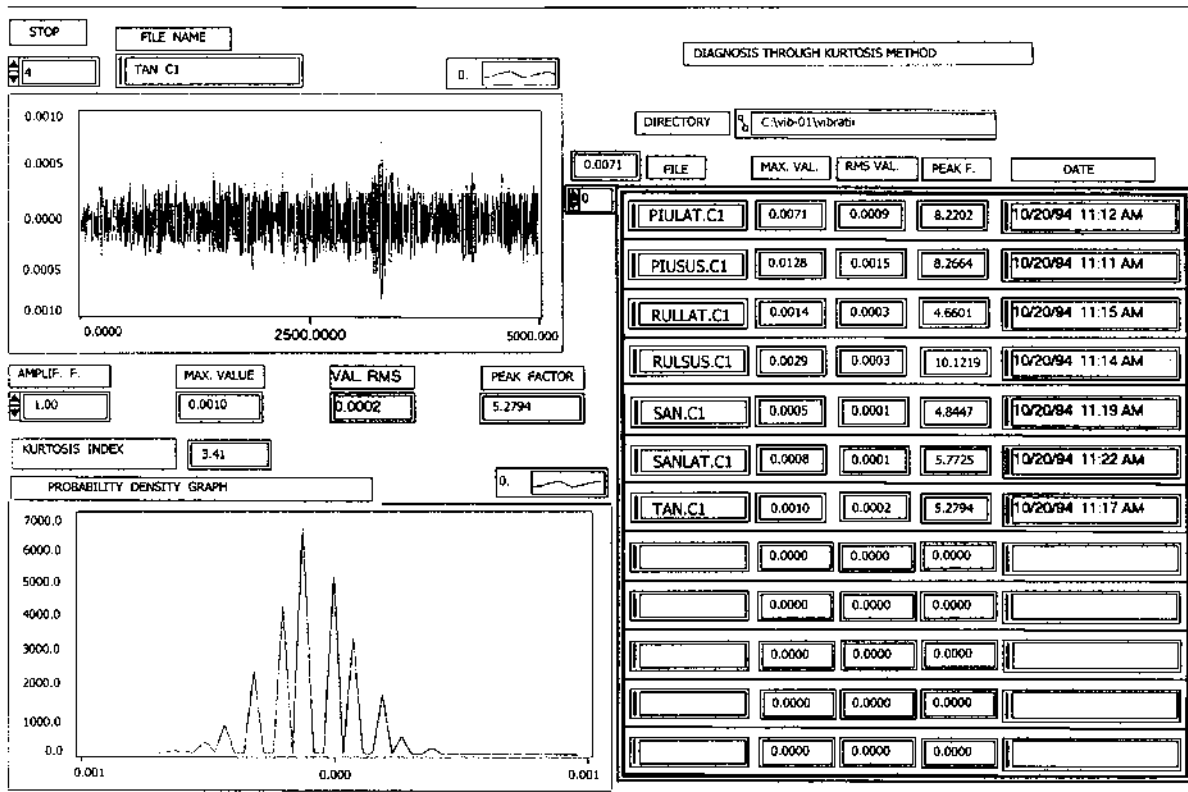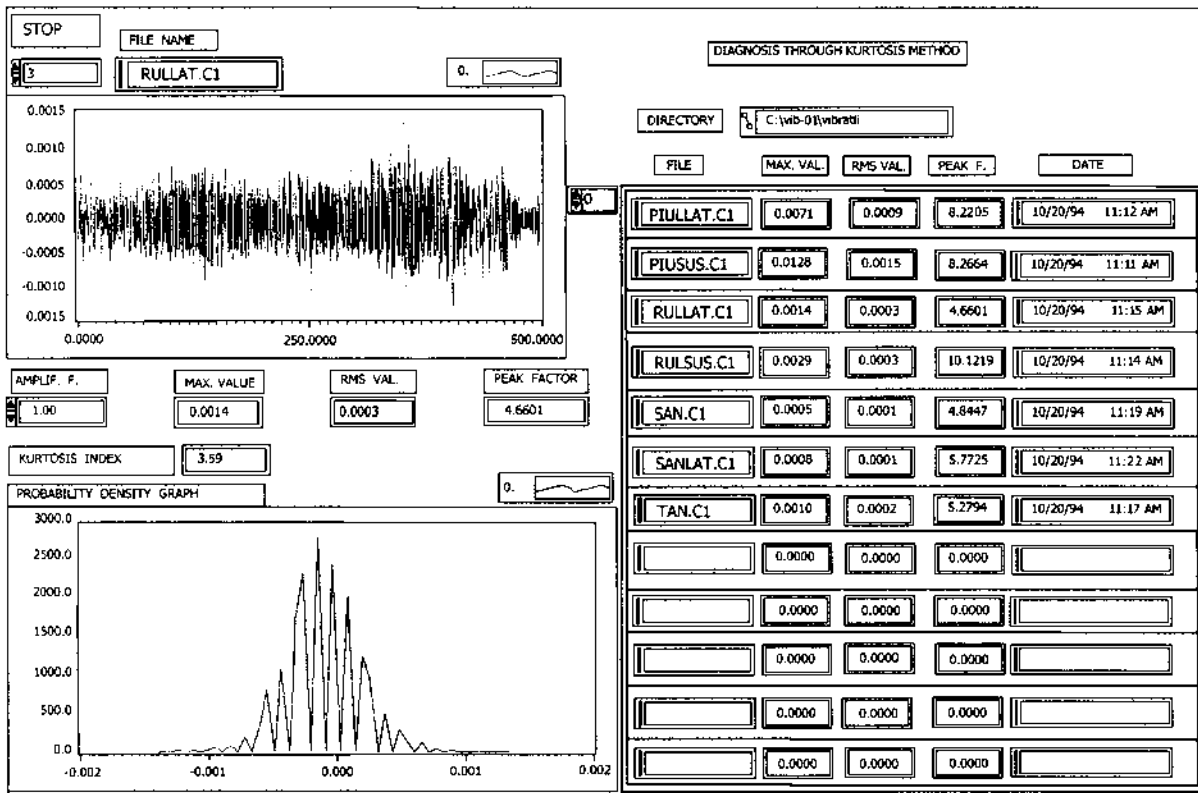# Appendix 1: Surface Diagnosis Through Virtual Instrumentation

A1.1   SURFACE DIAGNOSIS

A1.1.1   INDKURT Virtual Instrument Applied to Some Elements of the Feed Kinematic Chain Structure (Tested Physical Model)
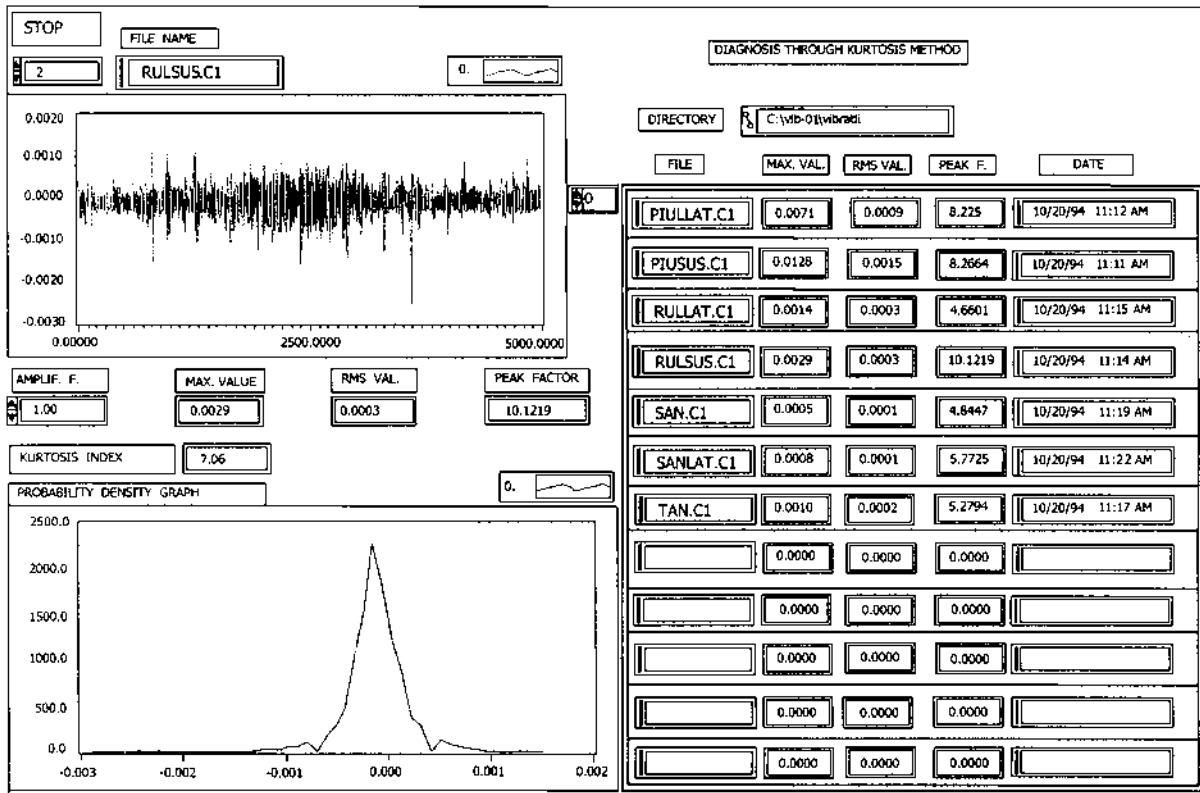
FIGURE A1.1 Signal captured from the ways (guidings) of the saddle—ways type tankettes with rolls. Diagnosis by Kurtosis method.

FIGURE A1.2 Signals captured from the font ball bearing of the leading screw for lateral location. Diagnosis by Kurtosis method.
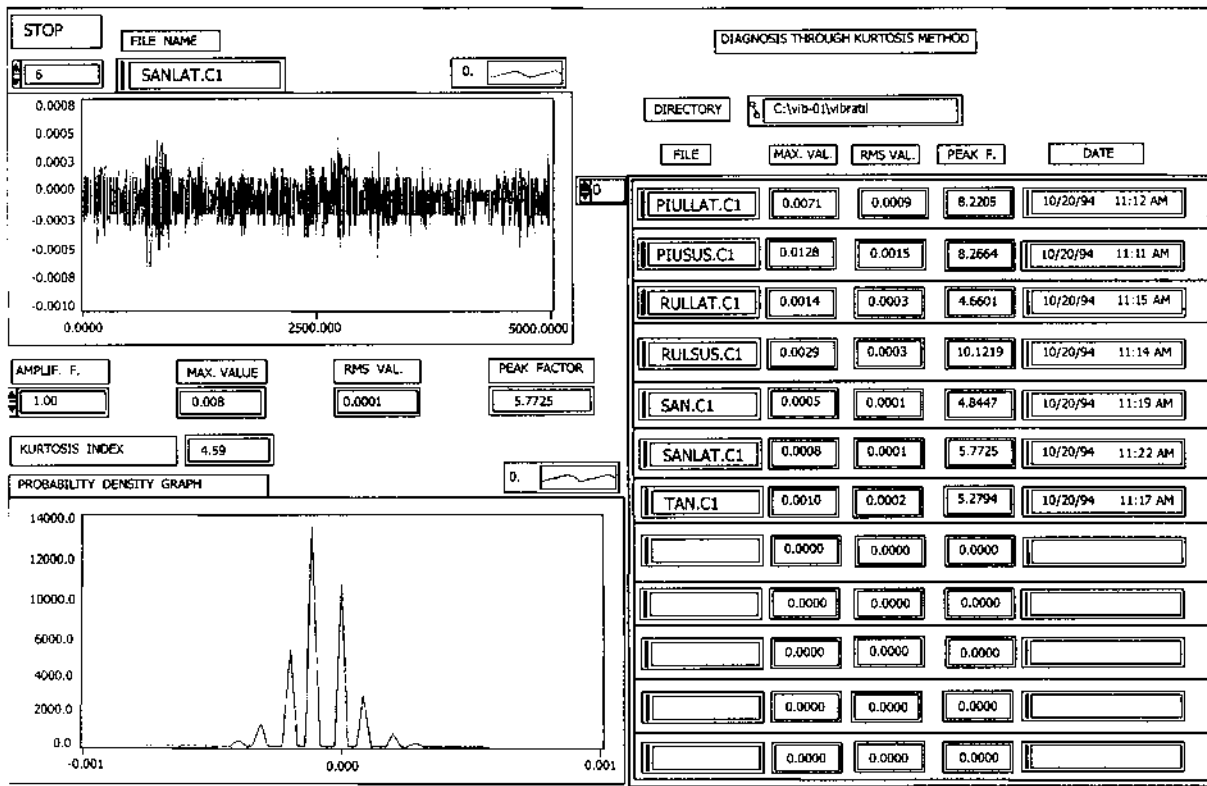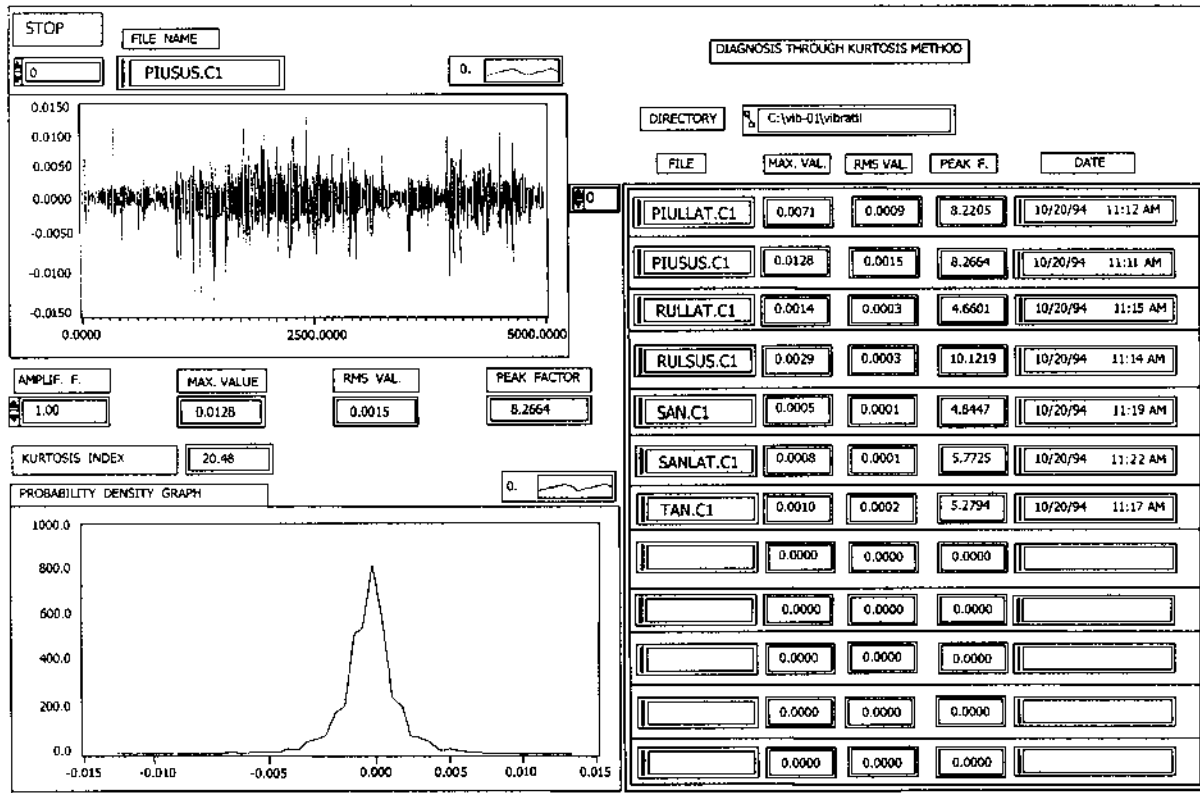
FIGURE A1.3 Signal captured from the longitudinal saddle of the feed kinematic chain. Diagnosis by Kurtosis method.

FIGURE A1.4 Signals captured from the font ball bearing of the leading screw for top location. Diagnosis by Kurtosis method.
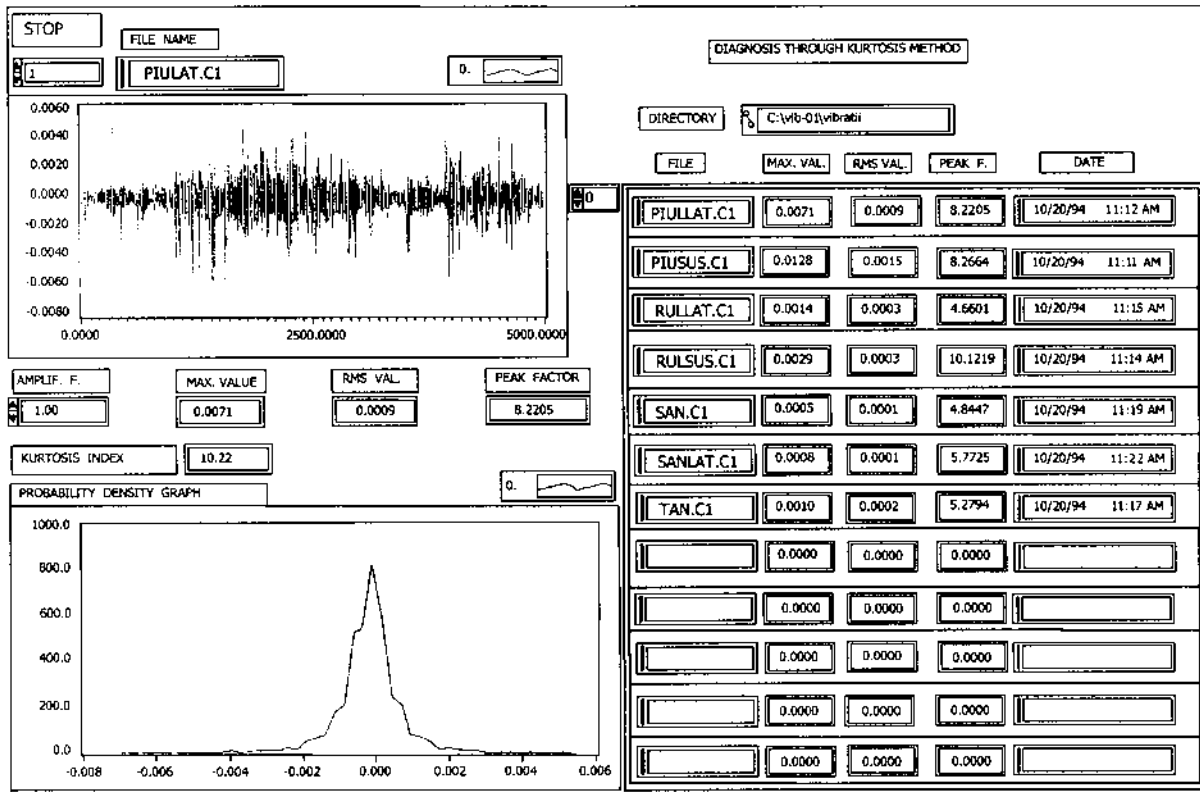
FIGURE A1.5 Signal captured from the nut of the screw-nut mechanism with balls—lateral location. Diagnosis by Kurtosis method.

FIGURE A1.6 Signal captured from the nut of the screw-nut mechanism with balls—top location. Diagnosis by Kurtosis method.