

***Application of Signal Analysis
in the Study of Dynamic Characteristics
of Displacer in Cryocoolers***

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Pressure sensors and laser ranging are often used to test the dynamic characteristics of pistons. The test results obtained by them are intuitive and accurate. However, the debugging process is complex. In order to simplify the test process of displacer dynamics in cryogenic coolers, the vibration signal analysis method is used to test the dynamic characteristics of the displacer, and the results obtained can meet the analysis requirements. The signal analysis method can provide a quantitative basis for the debugging and fault detection of cryogenic coolers.