

## FIXTURE FOR SLOT MILLING KEYWAYS ON AN INDUSTRIAL GEAR SHAFT

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### ABSTRACT

*The objective of this paper is to develop a fixture that locates the component precisely and proficiently. The system follows 3-2-1 procedure of clamping, which provides the component the capacity to be immobile under various cutting forces while machine in a vertical milling machine. The purpose of the system is to eliminate individual marking, positioning and frequent checking. The proposed system of fixture provides the manufacturer uniform quality of manufacturing and also facilitates error free mass production of the component. The clamping position of the fixtures, the kinematic constraint balance and the cutting forces are taken into account for the design of the fixture. This fixture is first of its kind. The fixture not only holds the component efficiently and stable but also reduces the setup time.*

**KEYWORDS:** Milling Fixtures, Gear Shaft, Keyway & Fixture Design