



SAFETY & RELIEF VALVES



Jacking test allows to.

- 1) Use normal operating pressures inside the equipment during testing, which offers following advantages:
 - Automatic equipment operation requiring less staff.
 - Reduced fuel costs.
 - No overload on equipment.

- 2) Keep the amount of spouting fluid at a very low level, which offers following advantages:
 - No rapid change in pressure and temperature produced and conducted to equipment by safety valve.
 - No fear of impairing seat tightness of the safety valve.
 - Reduced test time due to eliminated necessity to raise pressure inside the equipment, and low noise.

System Overview

What is jacking test?

It is important that a safety valve should pop off at a preset pressure. The popping (opening) pressures of safety valves in power plants are checked and adjusted during routine inspections of the boilers.

During check and adjustment, safety valves installed on actual equipment are actually operated under raised pressures. This is what is known as a field test.

Field tests on the actual installation are very expensive and unproductive. Besides, a large amount of spouting fluid produces loud noise, and the sonic flow of fluid passing through valve openings wears valve seats and impairs seat tightness. Under these circumstances, jacking test has found increasing use recently, thanks to its low energy consumption and low cost.

Jacking test measures the pressure difference between the pressure (held constant) inside the equipment and the popping pressure of the safety valve to make it possible to adjust and verify the popping pressure.

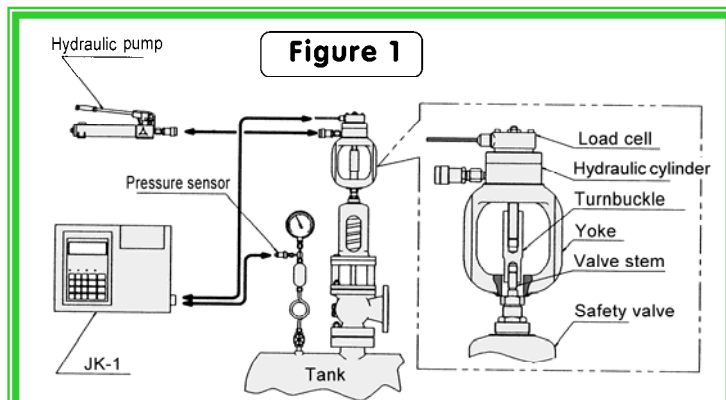
System configuration



JK-1 field test system is an up-to-date safety valve jacking test system incorporating a microcomputer based sensors.

As shown in Figure 1, the system consists of a hydraulic jack for applying load on the spring of safety valves. sensors (load cell and pressure sensor) for measuring the pressure difference between set pressure and popping pressure of the safety valve, and an input/output device (JK-1) for processing sensor signals and producing output.

The system is very easy to operate and you can rely on it completely. Once you have installed the system on the safety valve and switched on the input/output device (JK-1), the system measures the popping pressure of the safety valve automatically. The operator has only to operate the hydraulic pump.



SPECIFICATIONS

- Current AC100V 50/60Hz
(with chargeable battery)
- Ambient temp 0~45 °C
- Ambient humidity 80%RH
- Dimension/weight..... 250x190x85mm / 3.7kg



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