

### The Problem

Test and Production Engineers are often faced with the task of measuring for the burst pressure in products quickly, accurately and inexpensively.

Mechanical pressure measuring devices such as pressure gauges are insensitive, slow and subject to operator errors.

On the other hand, overly complicated burst testing equipment is probably too elaborate for the task. Custom designed PLC based test equipment is frequently expensive and difficult to program. Furthermore long-term engineering support becomes more difficult.

### The Zaxis Solution



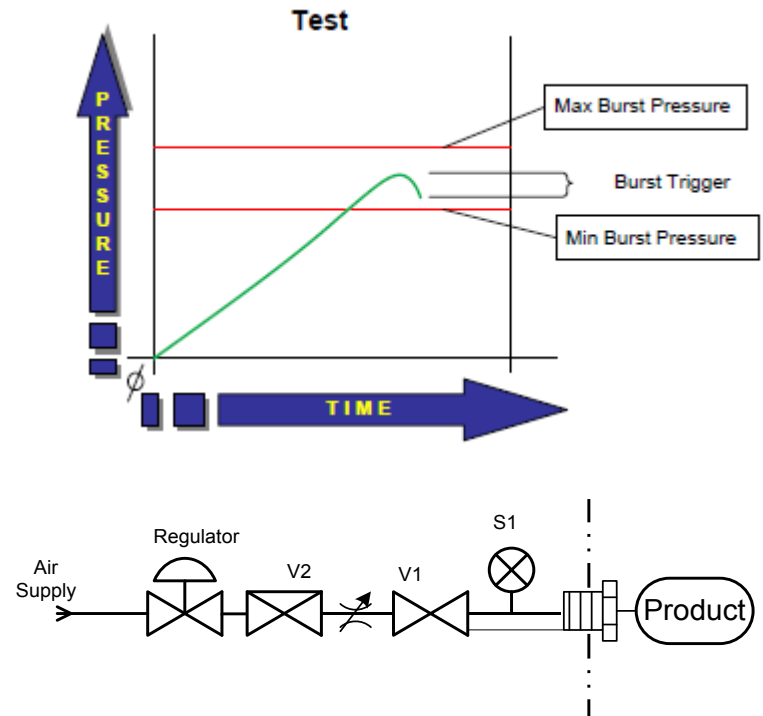
The off the shelf solution of Isaac of burst testers work like a pressure gauge, except the Isaac has the advantage of a high resolution (24bit) digital

readout with timers and limit settings. A single sensor will be used for all parts of the burst test. The device will be tested by a ramping pressure, at the point of rupture or opening a small pressure drop is sensed by the internal transducer. This drop is the burst event; the peak pressure is recorded and compared to the limits to determine the pass/fail status.

### How the Isaac Works

The Isaac burst tester works like this:

1. The product is attached to the test port and the test sequence is initiated.
2. The **Test** step, pressurizes the part with regulated air through [V2] a needle valve and [V1].
3. During the **Test** step the ramp rate of pressure is measured by the Isaac's pressure sensor[S1].
4. When a burst occurs a small drop in the ramp rate occurs triggering the burst event. The pressure is recorded and compared to limits for pass or fail.
5. The remaining pressure is **Vented** for safety.



## Applications

Isaac burst testers are used frequently to test parts that were tested using simple analog pressure gauges or manual burst stations.

The Isaac can be used to test both small and large volume parts. For small parts the extremely small internal volume will allow for very quick test times allowing a high throughput of production. If a large part is to be tested, the pneumatics can be adjusted to maximize the potential of the tester.

Both rigid and flexible parts can be tested, making the Isaac the most flexible platform available.

## Features

- High Sensitivity
- Extremely low internal volume (0.8cm<sup>3</sup>)
- Small footprint.
- Available in a wide range of test pressures.
- Off the shelf delivery.
- Custom testing capabilities..
- Easily adapted to automation.
- Intuitive user interface.
- Simple calibration procedures.

