

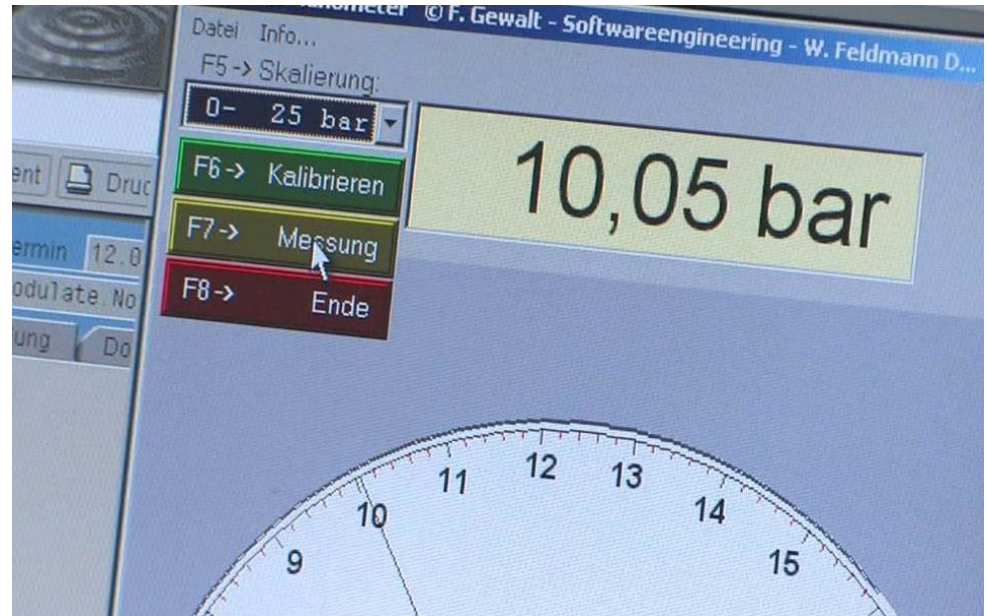
Set Pressure



Objectives of this Presentation. Knowledge to learn.

1. Objectives | 2. Set Pressure Definition | 3. Set Pressure Definition ISO 4126-1 | 4. Different Manufacturer Definitions | 5. Set to pop vs. initial audible discharge

The aim of this presentation is to explain the **meaning of set pressure** and its **different definitions**.



Set Pressure Definition.

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ASME PTC 25, 2001, 2.7 OC of PRD

The value of increasing **inlet static pressure** at which a pressure relief device **displays** one of the **operational characteristics** as defined under:

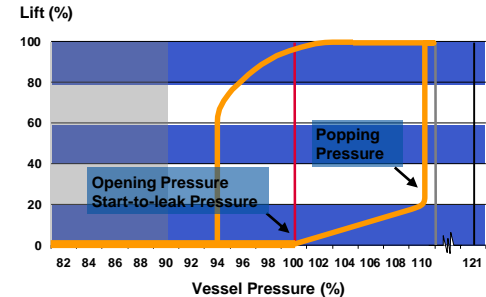
opening pressure, popping pressure, start-to-leak pressure, burst pressure or breaking pressure.

(The applicable operating characteristic for a specific device design is specified by the device manufacturer).

API 520, 2000, 1.2.3.3 a.

The set pressure is the **inlet gauge pressure** at which the pressure relief device is **set to open under service conditions**.

The symbol is **p**.



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Set Pressure Definition.

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ISO 4126-1, 2004, 3.2.1

Predetermined pressure at which a safety valve **under operating conditions** commences to open.

Note:

It is the gauge pressure measured at the valve inlet at which the pressure forces tending to open the valve for the specific service conditions are in equilibrium with the forces retaining the valve disc on its seat.

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Set Pressure. Different Manufacturer Definitions.

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Set pressure is the **inlet gauge pressure** at which the safety valve is **set to open under operating conditions**.

Each manufacturer is able to define set pressure differently.

 THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS	NB-18 (Red Book)	
Company	Liquids	Steam/Air/Gases
1. LESER	First steady stream	Initial audible discharge
2. CROSBY	First drops	Popping
3. DRESSER	First steady stream	Popping
4. FARRIS	First steady stream	Popping
5. Sempell	First steady stream	Initial audible discharge
6. Weir Valve & Controls	First steady stream	Initial audible discharge

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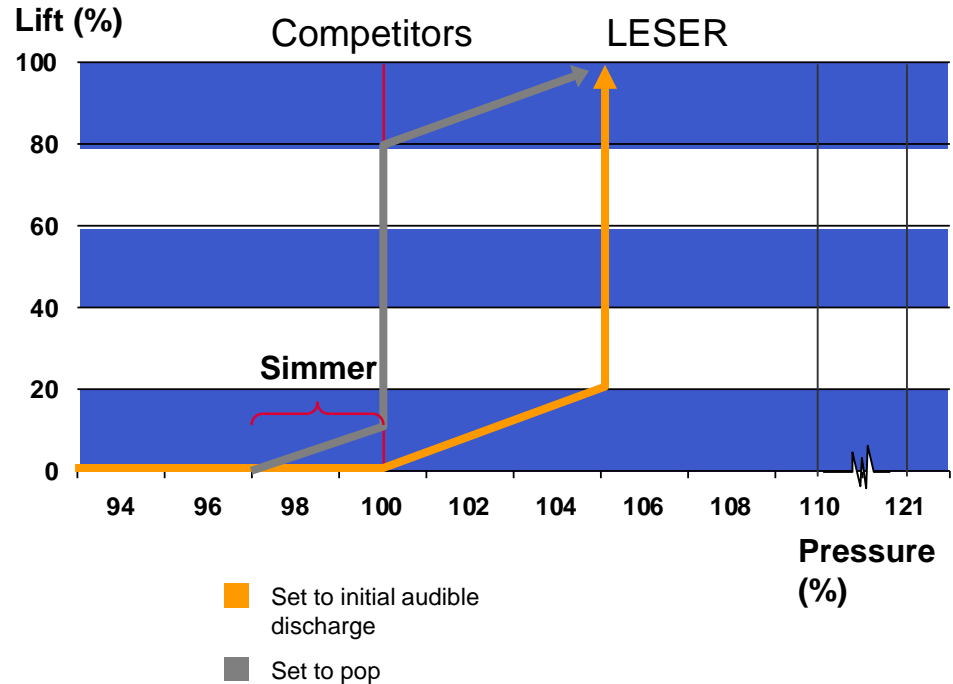
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Set to Pop vs. Initial Audible Discharge.

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The safety valves of LESER are

- tight till set pressure
- open rapidly to the full lift.



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Set Pressure

Thank you for your attention.

