The tightness of a safety valve is important in nearly every industry. When handling valuable media or hazardous media, increased tightness means more cost efficiency and less pollution. Depending on pressure and valve size, the medium loss by an API 527-compliant safety valve typically amounts to several cubic meters per year. This causes a decrease of efficiency, and as a result the loss of money. In order to offer our customers reliable valve function, the LESER Tight Finish concept contains different solutions to reduce the loss of media. The LESER Nanotightness is the next evolution step of that concept. It provides a significantly improved functional tightness for metal-to-metal sealing as a standard. LESER is the only manufacturer that certifies a leakage rate that lies 50% below the requirements of API 527.

Product features of LESER Nanotightness

- LESER Nanotightness exceeds the requirements for functional tightness of API 527 by 50%  
- available as standard for all safety valves with metal-to-metal sealing, ex works Germany  
- no additional costs  
- no additional delivery time
LESER Nanotightness

Benefits

- Less pollution when discharged to atmosphere or reduced utilization of closed blowdown systems
- 50% reduction in medium loss saves money
- Savings in medium loss up to several cubic meters per year, depending on pressure and valve size
- Increased plant efficiency

Technical information

LESER Nanotightness is achieved by modified design and machining of nozzle and disc, which guarantees roughness and flatness levels in the nanometer range.

- Surface quality:
  multi-stage lapping, honing and polishing process ensures flatness and roughness of the sealing surfaces in the nanometer range

- Material handling:
  surface protection and optimized handling processes throughout production

- Measurement technology:
  optical measurement technology with nanometer accuracy, results are used to control process

Available for the following valves

- API
- High Performance
- Compact Performance
- High Efficiency
- Modulate Action