



MAGNA STEYR

STORHY-Workshop in Paris
Regulations, Codes and Standards
- Gaps and Needs -

Dr. Pavel Novak
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Need - safe economical use of compressed gaseous fuel storage systems

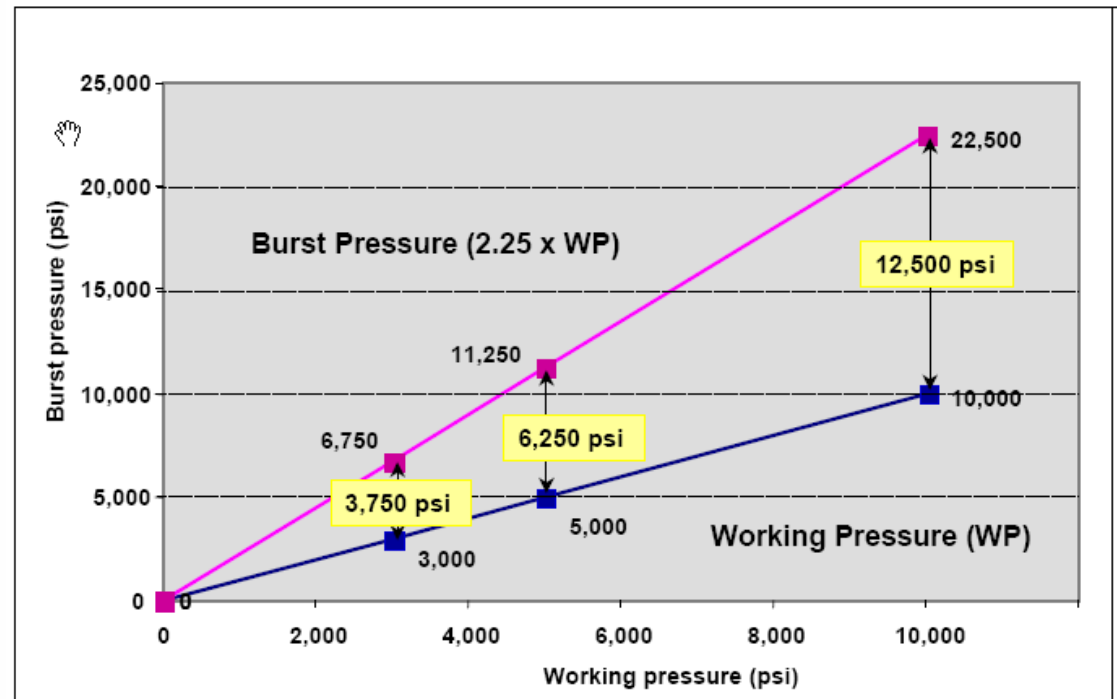
Need - design and test requirements in order to ensure a safe and reliable storage system when subject to the **automotive service conditions**

Gaps & Needs

Requirements for **light-weight** and for **safety** must be well **combined** to ensure a safe and economical storage system for automotive application

Gap - state-of-the-art definition for safety factor is conservative with regard to automotive service conditions

Need - alternative concept for safety factor's definition based on sound scientific or technical evidence



Need - *harmonization of design and test requirements*

(e.g. stress ratios)

Need - *higher consideration of safety aspects on storage system level*

(e.g. risk analysis, consideration of dynamic loads on system level)



Need – *option for alternative concepts with the same or a higher safety level*

(e.g. concepts for testing and approving of (new) materials)

Need – *possibility for modification of limit specifications with the same or a higher safety level*

(e.g. consideration of overall permeation rate for the benefit of a safe storage system)

Need – *design and test requirements for “hybrid” storage concepts*

(e.g. requirements for cryo-compressed storage systems)