

# Scanning laser Doppler vibrometer, PSV-400 Polytec GmbH

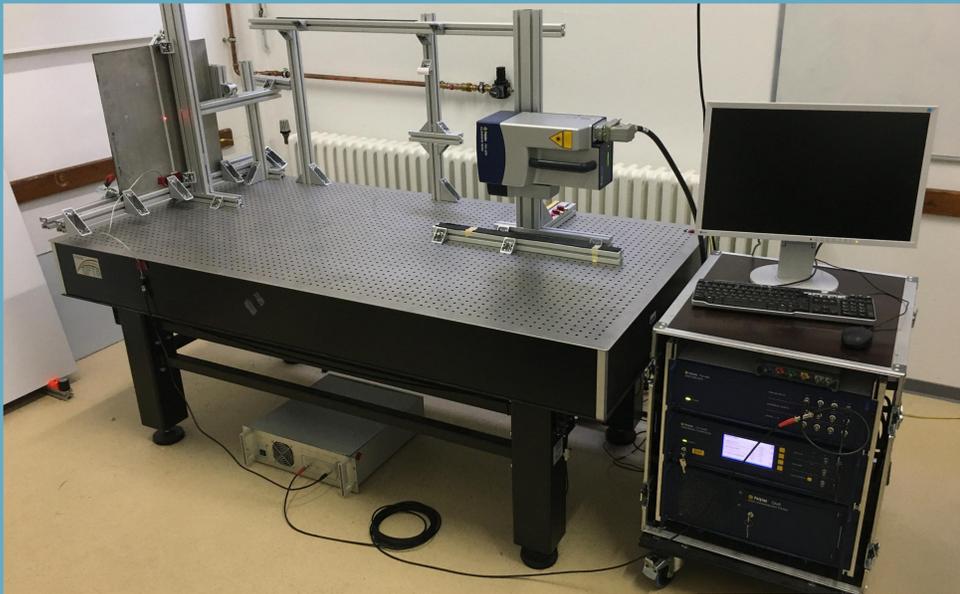
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## Unique Selling Point (USP)

The PSV-400's key strength is its fully non-contact, laser-based scanning capability, allowing high-resolution vibration measurements without mass loading. It combines precise laser Doppler vibrometry with automated spatial scanning to visualize vibration behavior over entire surfaces.



## General description/objective:

The PSV-400 is used to measure and analyze vibration behavior of mechanical structures, components, and assemblies across a wide frequency range. It is commonly applied in modal analysis, operational deflection shape analysis, NVH studies, SHM applications and validation of numerical (FEM) models.

## Technical specifications

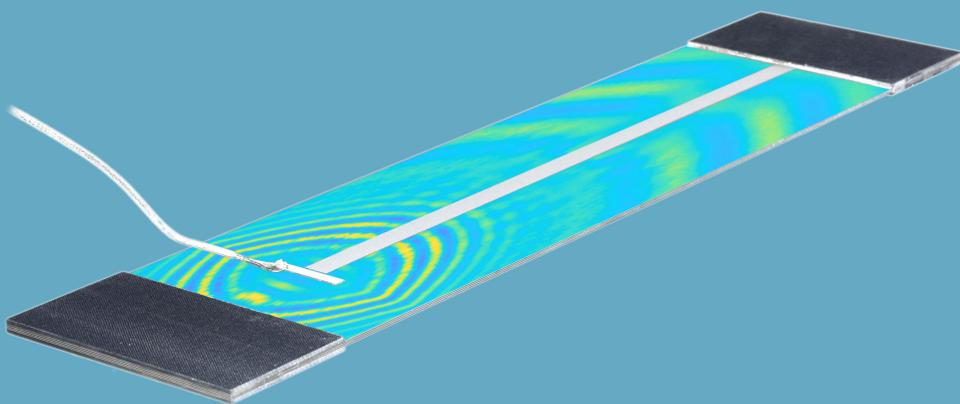
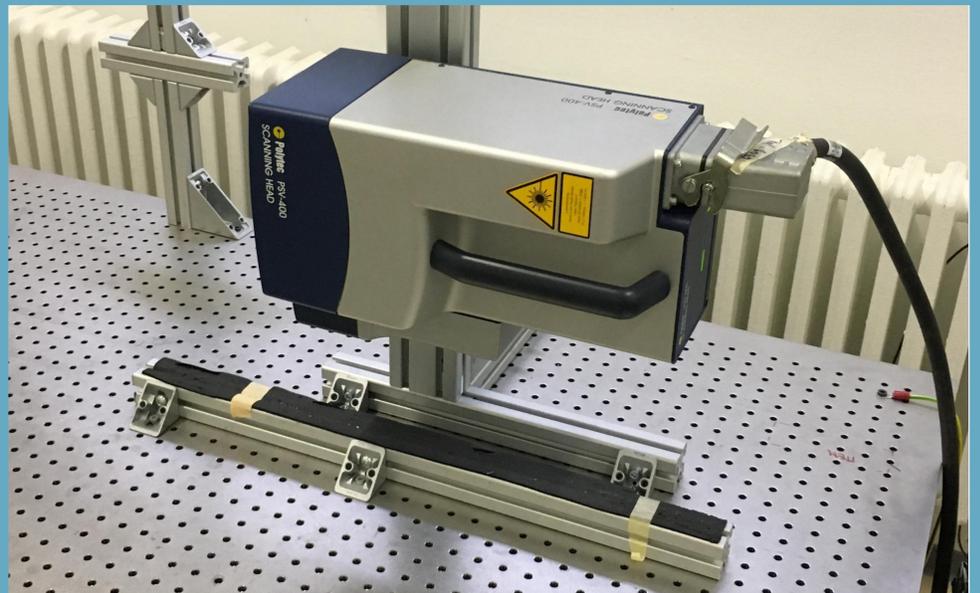
Model: PSV-400-H4 ([Link to datasheet](#))

Signal recorder:

- Max. frequency 80 kHz
- Additional option: Max. frequency 1 MHz

Signal generator, Sampling rate 1 MHz

Geometry Scan Head



Exemplary propagation of guided ultrasonic waves in a fibre metal laminate specimen

## Results/Output Parameters

Vibration velocity including spectra and time-domain vibration data mapped spatially over the test object as well as frequency response functions and operational deflection shapes.

## Publications

[Barth et al. 2023](#)

[Roloff et al. 2022](#)



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