



Competence in Damper Testing



« Increased requirements

FOR THE SAFETY, REDUCTION OF VIBRATIONS, WEAR AND COSTS

Faster speeds, the reduction of life cycle costs, noise, vibration and wear as well as test directions are demanding more increased requirements for the cushioning of bogies.

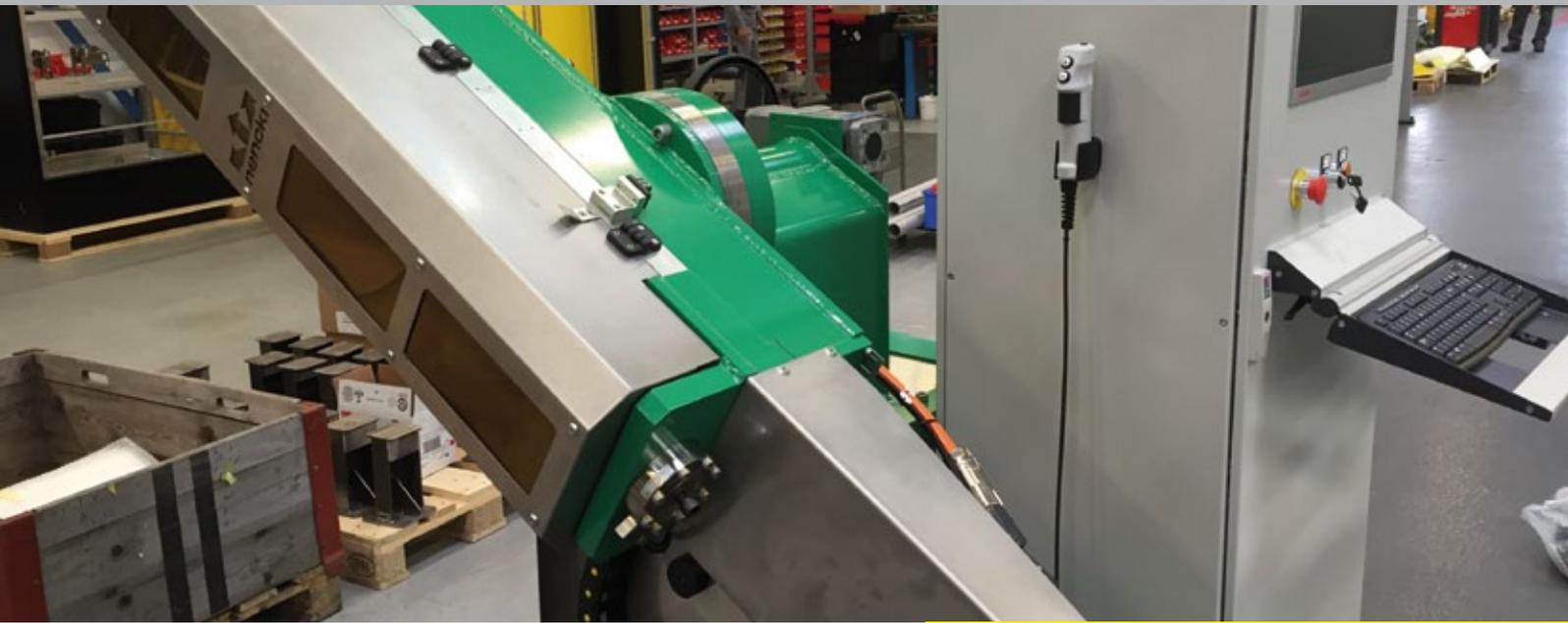
The Nencki damper test press was developed specifically for the railway industry. It is designed for measuring the damper force in dependence on the speed. Therefore, the entire damper unit must be placed into the installation position as on the bogie.

The drive for the dynamic test is by means of a strong servo motor. Dampers with lengths between 200 and 1200 mm and a force of 25kN and an acceleration up to 20m/s^2 can be tested.



THIS IS ANOTHER NEW NENCKI MACHINE FOR BOGIE WORKSHOPS

This machine with a complete new drive concept was first shown at the InnoTrans exhibition in 2014. In the meantime, various such machines are operating successfully daily in many countries.



The following features distinguish the Nencki damper test stand:

LATEST SWISS TECHNOLOGY, FLEXIBLE AND SPACE-SAVING

- « The angular position of the damper is adjustable fully automatic.
- « Self-lubrication
- « User-friendly control surface
- « Test processes can be programmed
- « Minimum space requirement
- « All functions and measurements are controlled by an industrial-PC with integrated PLC-control, installed fix in an electrical cabinet.
- « maintenance-friendly
- « prepared for tele-maintenance

ANGULAR POSITION OF THE DAMPER IS ADJUSTABLE FULLY AUTOMATIC.

Dampers have to be controlled and tested in the same angular position, as installed on the actual bogie, also according to EN standard 13802.

The angular position of the damper can be adjusted fully and program controlled by a servo motor.

As an option, the angular position of the damper can be adjusted on a pivot axis by a hand winch.





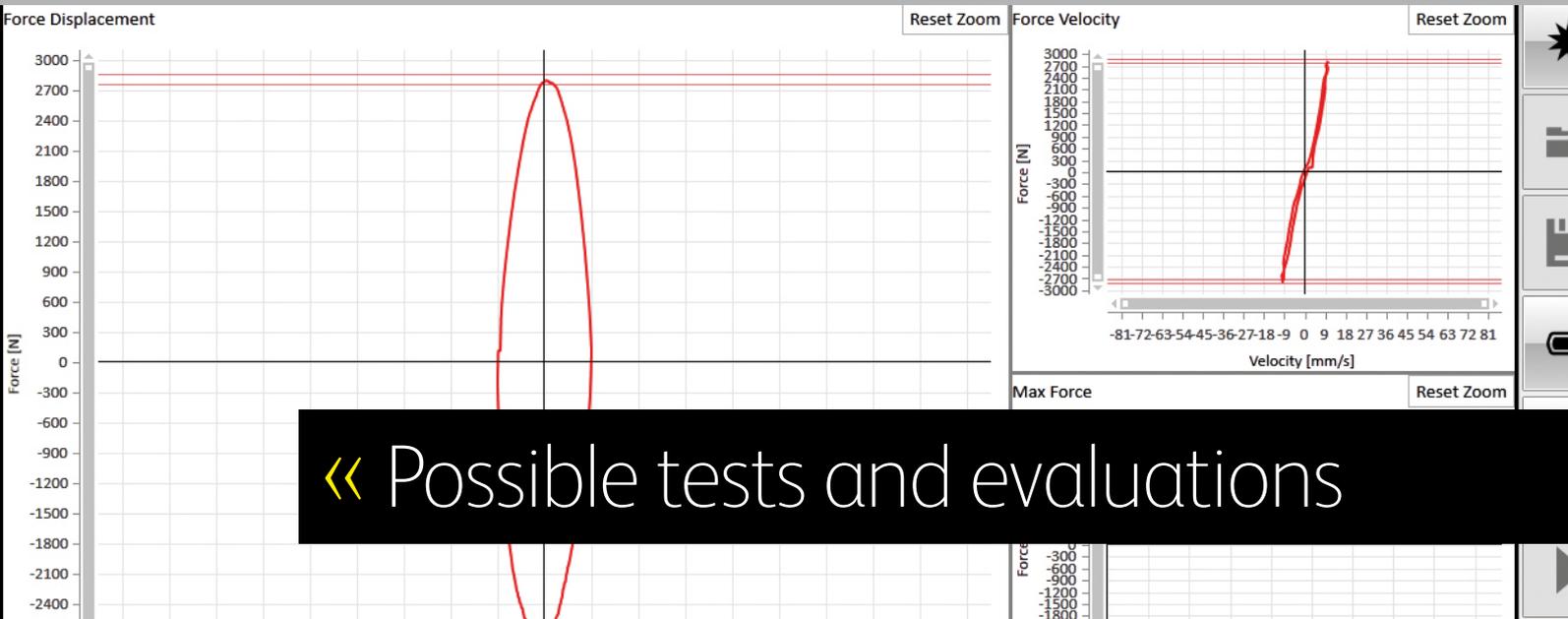
« Damper adapter

The actual damper adapter is designed specifically after the fixation type of the damper. The adapter can be exchanged by an easy plug-in system and secured by a central screw.

DAMPER TYPES TO BE TESTED WITH THE NENCKI NDT

- « vertical primary dampers
- « horizontal secondary dampers
- « vertical secondary dampers
- « snaking dampers
- « electric-controlled snaking dampers





« Possible tests and evaluations

- « Force-/speed and diagram
- « Force-stroke and diagram
- « Static damper force
- « leak test cycle

APPLIED TEST STANDARD

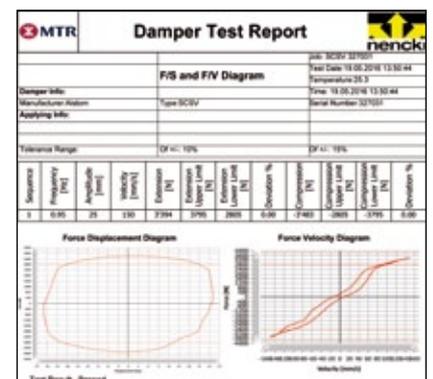
- « EN 13802 (2012)
- « others on request

TRACEABILITY OF THE TEST PROTOCOL

- « Test protocol with all relevant data
- « storable in a PDF-file
- « all test results and test parameters are always callable and traceable.
- « interface with the Nencki bogie data integration module.
- « integration into a paramount system possible

MAIN TECHNICAL DATA

- « maximum damper length: 1200 mm, longer types on request
- « maximum stroke: 600 mm
- « maximum test force: 25 kN
- « Angle adjustment range: from +95° to -15°, a total of 110°
- « maximum acceleration: 20m/s²
- « machine dimensions:
2900 mm long, 1600 mm wide and 2350 mm high.

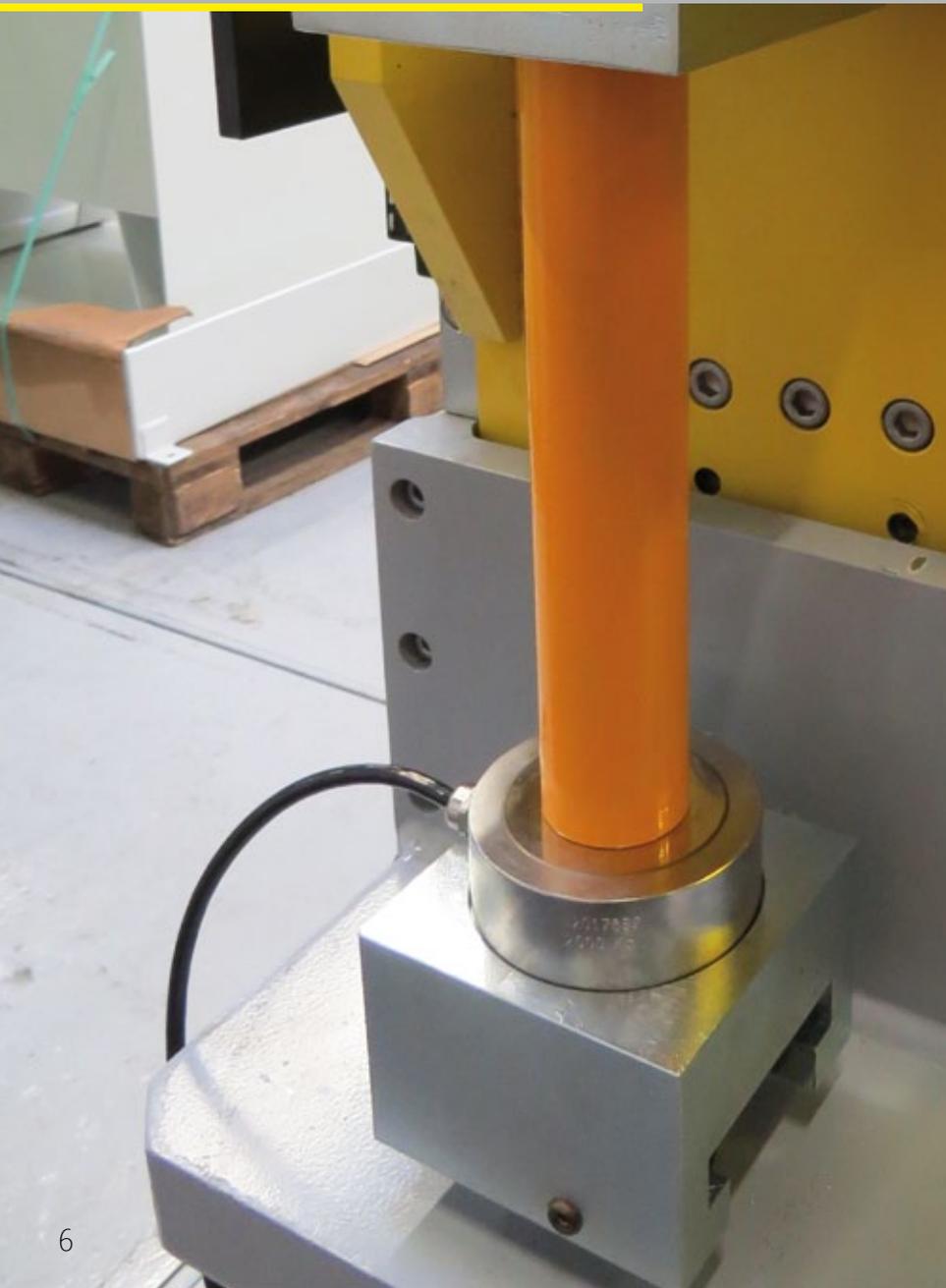


« Calibration and certification

The damper test stand represents a measuring machine, which has to be calibrated annually or after repairs according to ISO directions.

Nencki test stands are equipped with a standard software module for calibration, and the relevant calibration tools including the training are available as an option.

The load calibration is based on the ISO standard 7500-1.
If desired, authorized third parties can be engaged for the calibration.





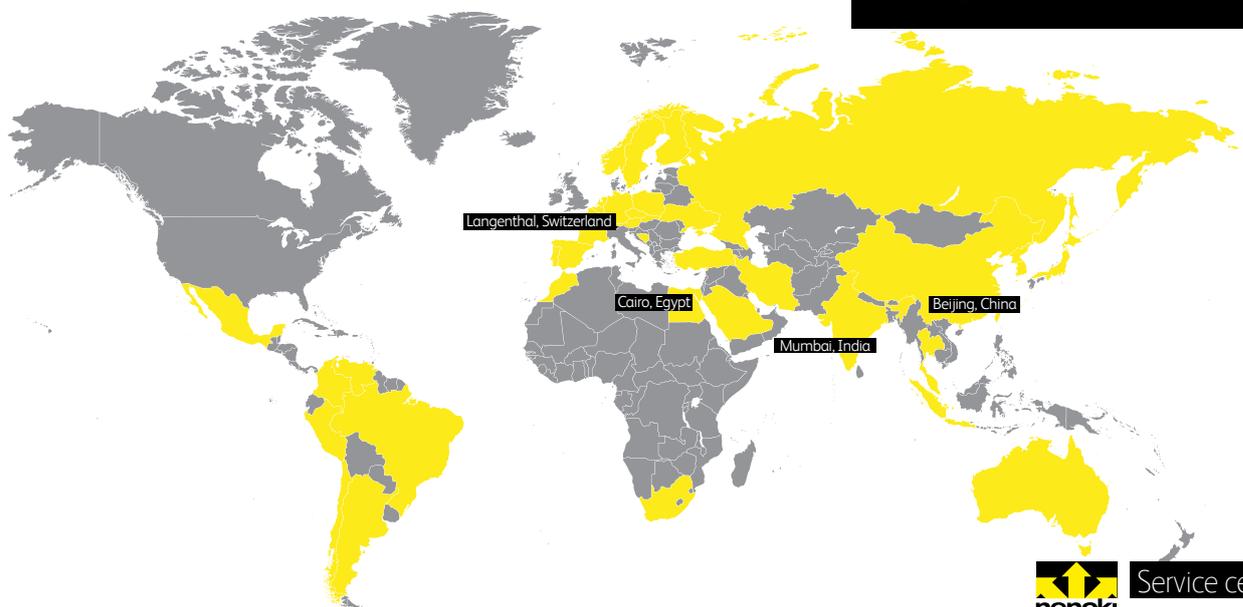
« Nencki support

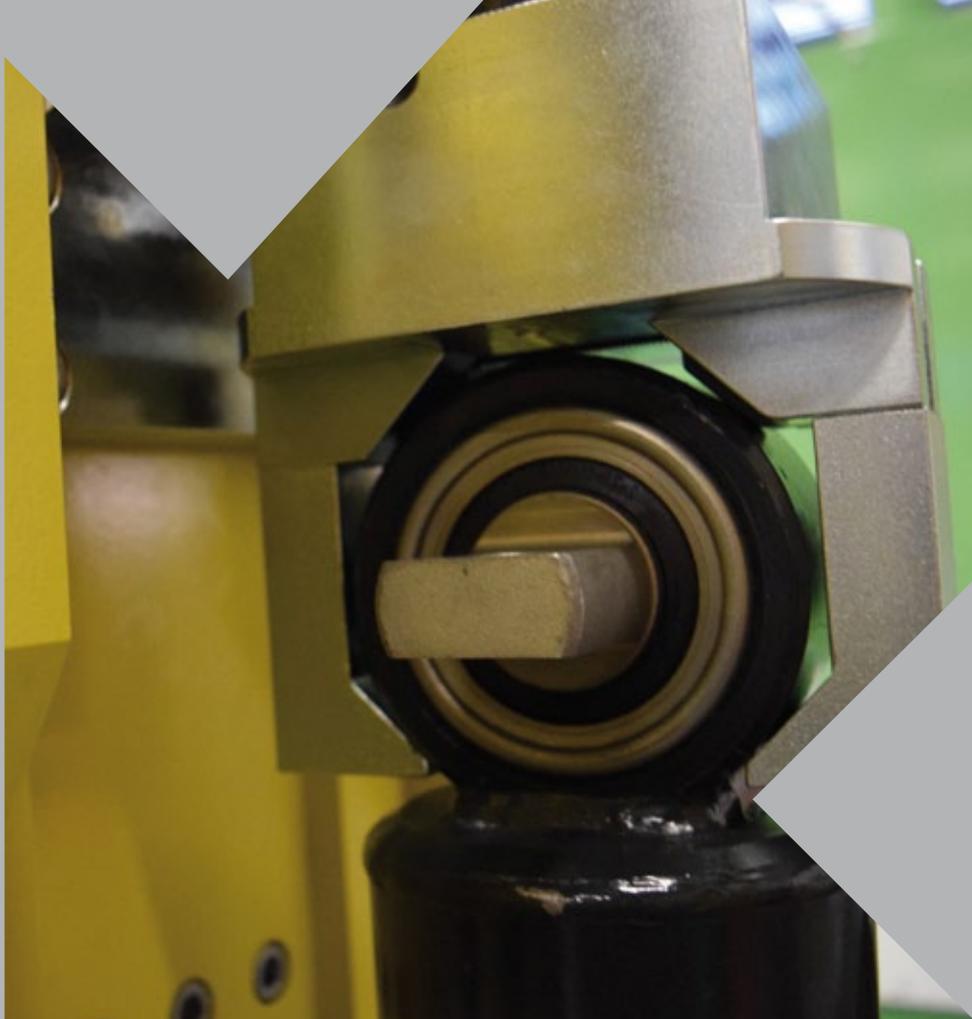
BEFORE AND AFTER THE SALE

In collaboration with local partners in the most important markets, Nencki Railway Technology is able to offer full support already in the evaluation phase.

The international service department with worldwide agencies of Nencki Railway Technology guarantees maximum machine availability. Very well educated and multilingual service engineers carry out an optimum support during the entire lifetime of a machine. Our services include:

- « Installation and commissioning
- « Training
- « Calibration
- « Tele-maintenance
- « Service contracts
- « Spare parts
- « Upgrades





Integrated
Bogie Workshop



Competence in
Bogie Testing



Competence in
Damper Testing



Bogie
Handling



Machines for
Railwelding Plants



Nencki Ltd.
Railway Technology
Aarwangenstrasse 90
4900 Langenthal
Switzerland

+41 (0)62 919 93 93
+41 (0)62 919 93 90
railway@nencki.ch
www.nencki-railway.ch