

# Residual stresses and their measurement for evaluating quality of shot peening

## 1/2 day on-site training

### Who should attend the course?

Designers and developers of the shot peening process. Managers, process engineers and supervisors of the shot peening process. Engineers and technicians of shot peening testing laboratories.

### Who designed this training?

A team of MFN trainers from 20 different countries ([www.mfn.li/trainers](http://www.mfn.li/trainers)) was selected and companies within the industry were contacted from around the globe to donate training material and exhibit items. The creation of the MFN training has been a real team effort, not just by the MFN trainers, but also by a number of companies which normally compete against each other. And this is especially worthy of mention - the common understanding that there is a need to establish a qualified training program and to create the spirit to do this together.

### MFN Partners:

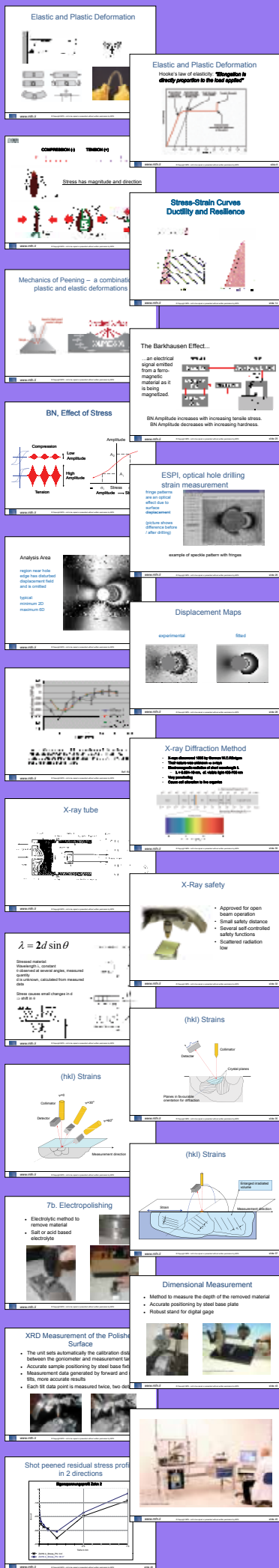
MFN is a partner in education in Nadcap ([www.pri-network.org](http://www.pri-network.org)). Nadcap and MFN have agreed to recognise and promote the cooperation between the two organizations in areas of common interest according to their purpose, namely aerospace special process assessment. Furthermore MFN is an Official Sponsor of FEMS (Federation of European Materials Societies, [www.fems.org](http://www.fems.org)).

### General Information:

- duration: 1/2 day
- registration fee: €390/person (minimum 5 persons)
- including trainings material
- including hands-on training on residual stress measurement device
- payments to be made before the training, group discount available



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## Residual stresses and their measurement for evaluating quality of shot peening

Main Topics	Description	Duration
- Introduction	General introduction of MFN, the trainer and the course	8:00-8.10 10 min.
- Stress and Strain	Theory of stress and strain	8:10-8:40 30 min.
- Residual stresses	Origin and effect of residual stresses	8:40-9:10 30 min.
- Measurement Techniques – Introduction	Typical RS measurement techniques, their application and limitations	9:20-9:50 30 min.
- X-ray diffraction	Theory of XRD. XRD and residual stress measurement. Calibration, typical sources of uncertainties. Limitations of XRD. (XRD and retained austenite, optional)	9:50-10:30 40 min.
- X-ray diffraction applications	Practical measurement methods, evaluation of measured data, XRD residual stress measurement standard, reporting. Stress profiling. Stress mapping	10:40-11:20 40 min.
- X-ray diffraction	Hands on training, practical measurements	11:20-12:20 60 min.

MFN

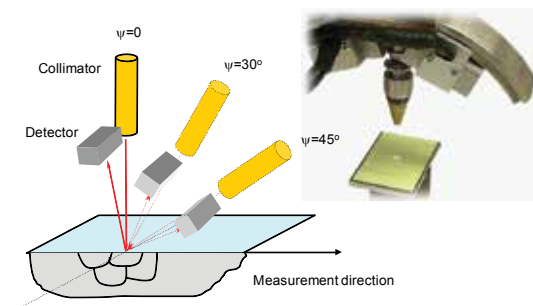
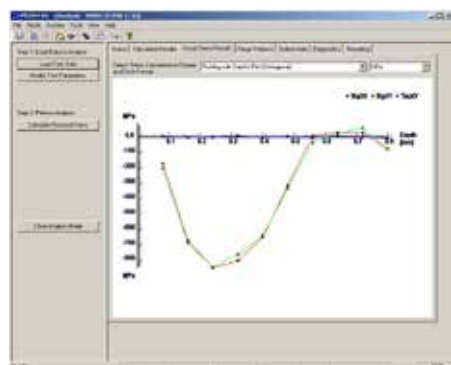


The Trainers:  
MFN Scientific Adviser  
Michele Bandini (Ph.D.)

More details at  
[www.mfn.it/trainers](http://www.mfn.it/trainers)



Residual Stresses and their  
Measurement  
(hands-on training)





## Registration:

Name of Person placing the Order:	
Company:	Street:
Postal Code:	City:
Country:	Phone:
E-mail:	Fax:
For Europe only - Company VAT Number:	
Residual Stresses and their Measurement Course: No. of Participants (minimum 5 people) ____ x €390 = ____	
Travel Expenses of Trainers (economic class ticket, hotel, taxi, expenses): ____	



For questions call +41.44.831 2644 or E-mail: [info@mfn.li](mailto:info@mfn.li)



Other Topics on Request! Pictures show training centre in Altena, Germany.

