



MFN Shot Peening Workshop, Wroclaw, Poland

Date: May 5 - 7, 2020



www.mfn.li

- 19 different Topics
- FAA approved Courses
- MFN is a Partner in Education in Nadcap
- includes Flap Peening Demonstration



Basic/Level 1 Course	Intermediate/Level 2 Course	Advanced/Level 3 Course
May 5, 2020	May 6, 2020	May 7, 2020
<p>Level 1 is the minimum requirement for shot peen operators and is the foundation for level 2. The level 1 course provides training in peening workshop operations & inspections. The content includes: Introduction to Peening; Intensity L1; Coverage & other inspections; Wheel Shot Peening Machines; Air peening machines & nozzles; Peening Media L1; Performing & Documentation</p> <p>FAA approval ref. no. will be on certificate of achievement</p>	<p>Level 2 is the minimum requirement for shot peen supervisors & technicians. Level 2 builds on the knowledge gained in level 1 to provide further capability in: Understanding Intensity & Saturation curves L2; Saturation curve exercises; Coverage L2; Engineering & Planning the process; Peening Reciprocating Engine Applications; Peening Media L2; Preparing for SP audit</p> <p>FAA approval ref. no. will be on certificate of achievement</p>	<p>Level 3 is the recommended standard for auditors, trainers & specifying engineers. Level 3 provides greater breadth and depth of knowledge to enhance the competence gained from the previous levels. Residual Stresses & their measurement; Fatigue & Stress Corrosion; Optimization of SP; SP Process Improvement; Alternative Peening Technologies I; Alternative Peening Technologies II; Undertaking a SP audit</p> <p>FAA approval ref. no. will be on certificate of achievement</p>

Location: - METLAB, ul. Ibn Siny Awicenny 14, 54-611 Wroclaw Poland

Description about the courses at:
www.mfn.li/workshop/courses

- Registration Fees:** - €550 per person and course, group discount available
- Included: course documentation, break refreshments and lunches
 - Not included: transportation, lodging and other meals
 - Class size is limited. Make early reservations.
 - Certificate of completion is issued to each participant
 - Optional certificate of ACHIEVEMENT (€100)
 - Payment to be made before the workshop
 - Cancellation will be charged € 50 and must be made in writing 7 days prior to the start of the workshop. "No Shows" will be liable for the full fee.



Note: Workshops sometimes get cancelled. Check with organizer before making non-refundable flight or hotel arrangements.

Registration: (One form per person. You may copy this form.)

Name:	Surname:
Company:	Street:
Postal Code:	City:
Country:	Phone:
E-mail:	Fax:

For Europe only - Company VAT Number:

**New Topics!
Completely revised!**

	basic/level 1	intermediate/level 2	advanced/level 3
Shot Peening Course €550 per course, group discount available. Each course to be paid separately.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Optional Test for Certificate of Achievement (€100)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Registration E-mail to andrzej@mfn.li, For questions call +48.885.200 993

Why attend the MFN Shot Peening Workshop



MFN is organizing frequently these international 1-4 days Shot Peening Workshops and to attract a wide spread audience. Operators, supervisors, process & maintenance engineers, buyers, even trainers will be able to either learn something completely new, or at least be able to refresh their knowledge.

FAA approved Courses:

All 3 courses offered during the workshop are FAA approved. Participants who passed the optional examination receive a "Certificate of Achievement", which has the related FAA identification number on it. The FAA approval gives the courses a general credibility. However, there are a lot of aviation repair and overhaul stations, which do receive frequent FAA audits. Especially those companies will appreciate to have access to a FAA approved shot peening training.

MFN is Partner in Education in Nadcap:

Nadcap and MFN have agreed to recognise and promote the cooperation between the two organisations in areas of common interest according to their purpose, namely aerospace special process assessment. The cooperation will be known as "Partners in Education" and is intended to create synergy, making optimal use of the resources available, for the accreditation related activities offered by both organizations so as to provide an effective and efficient service to the aerospace industries in the world.

Topics of Workshop:

- introduction to peening and theory, -peening intensity, -effect of peening,
- Almen saturation curve, -peening coverage, -exposure time, -peening location,
- process documentation, -masking solutions, -workpiece fixtures, -shape & size inspection of peening media, -specifications, -shaded strips, -audits by 3rd parties,
- durability/performance tester for shot peening media, -specifications & standards,
- peening equipment components, -air & wheel peening, -machinery styles and application examples, -hole peening, -flap peening, -peen forming, -optimization of shot peening for fatigue critical applications, -residual stress, -XRD and BNA measurement of shot peening induced stresses, -laser peening, ultrasonic peening, cavitation peen, -deep rolling, -photo optical particle analysis, -shot peening in the automotive industry, -etc.

Description about the courses at: www.mfn.li/workshop/courses





BASIC / L1: May 5, 2020

Description about the courses at: www.mfn.li/workshop/courses

Time	Subject	Course	Official MFN Trainer
8:50-9:00	-Official Opening of Basic Course / L1	-----	Andrzej Wojtas
9:00-9:45	-Introduction to Peening	Basic, FAA recognized	Andrzej Wojtas
9:45-10:30	-Intensity L1 (requirements & verifying)	Basic, FAA recognized	Andrzej Wojtas
Morning Break (15 minutes)			
10:45-11:30	-Coverage & other inspections	Basic, FAA recognized	Andrzej Wojtas
11:30-12:15	-Wheel Shot Peening Machines	Basic, FAA recognized	Andrzej Wojtas
13:00-13:30	-Air peening machines & nozzles	Basic, FAA recognized	Andrzej Wojtas
13:30-14:15	-Peening Media L1 (types & inspection)	Basic, FAA recognized	Andrzej Wojtas
14:15-15:00	-Performing & Documentation (including masking)	Basic, FAA recognized	Andrzej Wojtas
Afternoon Break (15 minutes)			
15:15-15:35	-Comment: The foundation course for all trainees. The basic theory training for operator level.	Basic, FAA recognized	Andrzej Wojtas
15:35-16:20	-Test for FAA approved Certificate	Basic, FAA recognized	Andrzej Wojtas

INTERMEDIATE / L2: May 6, 2020

Description about the courses at: www.mfn.li/workshop/courses

Time	Subject	Course	Official MFN Trainer
8:50-9:00	-Official Opening of Intermediate Course / L2	-----	Andrzej Wojtas
9:00-9:45	-Understanding Intensity & Saturation curves L2	Intermediate, FAA recognized	Andrzej Wojtas
9:45-10:30	-Saturation curve exercises	Intermediate, FAA recognized	Andrzej Wojtas
Morning Break (15 minutes)			
10:45-11:30	-Coverage L2 (development & advanced applications)	Intermediate, FAA recognized	Andrzej Wojtas
11:30-12:15	-Engineering & Planning the process	Intermediate, FAA recognized	Andrzej Wojtas
13:00-13:30	-Peening Reciprocating Engine Applications	Intermediate, FAA recognized	Andrzej Wojtas
13:30-14:15	-Peening Media L2 (specifications & testing)	Intermediate, FAA recognized	Andrzej Wojtas
14:15-15:00	-Preparing for SP audit (as an auditee)	Intermediate, FAA recognized	Andrzej Wojtas
Afternoon Break (15 minutes)			
15:15-15:35	-Comment: For lead operator & supervisory levels	Intermediate, FAA recognized	Andrzej Wojtas
15:35-16:20	-Test for FAA approved Certificate	Intermediate, FAA recognized	Andrzej Wojtas

ADVANCED / L3: May 7, 2020

Description about the courses at: www.mfn.li/workshop/courses

Time	Subject	Course	Official MFN Trainer
8:50-9:00	-Official Opening of Advanced Course / L3	-----	Andrzej Wojtas
9:00-9:45	-Residual Stresses & their Measurement	Advanced, FAA recognized	Andrzej Wojtas
9:45-10:30	-Fatigue & Stress Corrosion	Advanced, FAA recognized	Andrzej Wojtas
Morning Break (15 minutes)			
10:45-11:30	-Optimization of SP [including nano-structuring]	Advanced, FAA recognized	Andrzej Wojtas
11:30-12:15	-SP Process Improvement	Advanced, FAA recognized	Andrzej Wojtas
13:00-13:40	-Alternative Peening Technologies I	Advanced, FAA recognized	Andrzej Wojtas
13:40-14:10	-Alternative Peening Technologies II (include rotary flap peening)	Advanced, FAA recognized	Andrzej Wojtas
14:10-15:00	-Undertaking a SP audit (as an auditor)	Advanced, FAA recognized	Andrzej Wojtas
Afternoon Break (15 minutes)			
15:15-15:35	-Comment: For engineering authority, specifiers, auditors	Advanced, FAA recognized	Andrzej Wojtas
15:35-16:20	-Test for FAA approved Certificate	Advanced, FAA recognized	Andrzej Wojtas



MFN Office East Europe
Contact: Andrzej Wojtas
Tel. +48.885.200 993
E-mail: andrzej@mfn.li



The Trainers:
Andrzej Wojtas (Ph.D.)
Chief Editor of MFN and
Official MFN Trainer

More details at www.mfn.li/trainers

E-mail Registration Form to andrzej@mfn.li

