



## MFN Shot Peening & Blast Cleaning Workshop & Trade Show, Mumbai, India

**Date: November 25 - 28, 2019**



www.mfn.li

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



Blast Cleaning	Basic/Level 1 Course	Intermediate/Level 2 Course	Advanced/Level 3 Course
November 25, 2019	November 26, 2019	November 27, 2019	November 28, 2019
To increase quality & productivity, cost competitively, represents a challenge for today's blast cleaning operation. To meet this challenge in the blast cleaning function necessitates a return to the basics of the process like blast cleaning fundamentals, maintenance in wheel blasting machine, SPC in blast cleaning, shape and size inspection in abrasive media, selection of equipment.	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 <b>FAA approval ref. no. will be on certificate of achievement</b>	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; Air Peening Machines & Nozzles; Peening Reciprocating Engine Applications; Peening Media L2 <b>FAA approval ref. no. will be on certificate of achievement</b>	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 <b>FAA approval ref. no. will be on certificate of achievement</b>

**Location:** - The Hotel Sea Princess, Mumbai, Maharashtra, see page 4

**Registration Fees:**

- Shot Peening course: 15000 INR per person and course, Blasting Cleaning: 7000 INR per person, 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 (6000 INR)
- Payment to be made before the workshop
- Cancellation will be charged 1500 INR 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.

**Trade Show:** -Tradeshow table charges INR 25000 per table.

**Description about the courses at:**  
[www.mfn.li/workshop/courses](http://www.mfn.li/workshop/courses)



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

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

**New Topics!  
Completely revised!**

	blast cleaning	basic/level 1	intermediate/level 2	advanced/level 3
<b>Shot Peening Course</b> Each course to be paid separately. Blast Cleaning: 7000 INR, Shot Peening: 15000 INR per course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Optional Test for Certificate of Achievement (6000 INR)	not available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Registration E-mail to [rishabh.shah@daksha.net](mailto:rishabh.shah@daksha.net), For questions call +91.9833971319**

# 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.

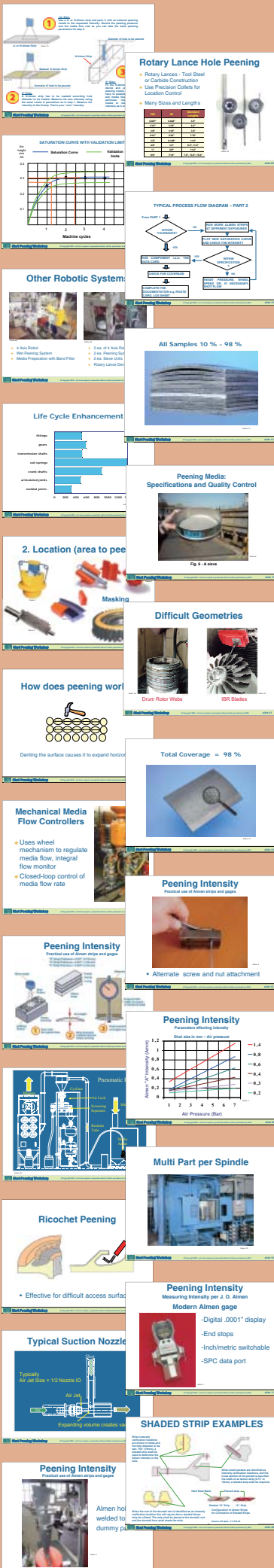
## MFN is Partner in Education in Nadcap:

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 3<sup>rd</sup> 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](http://www.mfn.li/workshop/courses)





### Blast Cleaning: November 25, 2019

Description about the courses at: [www.mfn.li/workshop/courses](http://www.mfn.li/workshop/courses)

Time	Subject	Course	Official MFN Trainer
9:00-9:10	-Official Opening of Blast Cleaning Course	-----	Rishabh K Shah
9:10-9:55	-Blast Cleaning Fundamentals PART 1	Blast Cleaning	Rishabh K Shah
9:55-10:40	-Blast Cleaning Fundamentals PART 2	Blast Cleaning	Rishabh K Shah
Morning Break (20 minutes)			
11:00-11:45	-Effective use of abrasive in blast cleaning	Blast Cleaning	Rishabh K Shah
11:45-12:30	-Wheel blast machine maintenance PART 1	Blast Cleaning	Rishabh K Shah
Lunch Break (45 minutes)			
13:15-14:00	-Wheel blast machine maintenance PART 2	Blast Cleaning	Rishabh K Shah
14:00-14:45	-Setting of hot spot	Blast Cleaning	Rishabh K Shah
Afternoon Break (20 minutes)			
15:05-15:50	-Introduction of SPC in blast cleaning process	Blast Cleaning	Rishabh K Shah
15:50-16:35	-Machine rebuild & selection of equipment	Blast Cleaning	Rishabh K Shah

### BASIC / L1: November 26, 2019

Description about the courses at: [www.mfn.li/workshop/courses](http://www.mfn.li/workshop/courses)

Time	Subject	Course	Official MFN Trainer
9:00-9:10	-Official Opening of Basic Course / L1	-----	Rishabh K Shah
9:10-9:55	-Introduction to Peening	Basic, FAA recognized	Rishabh K Shah
9:55-10:40	-Intensity L1 (requirements & verifying)	Basic, FAA recognized	Rishabh K Shah
Morning Break (20 minutes)			
11:00-11:45	-Coverage & other inspections	Basic, FAA recognized	Rishabh K Shah
11:45-12:30	-Wheel Shot Peening Machines	Basic, FAA recognized	Rishabh K Shah
Lunch Break (45 minutes)			
13:15-14:00	-Air Peening Machines & Nozzles	Basic, FAA recognized	Rishabh K Shah
14:00-14:45	-Peening Media L1 (types & inspection)	Basic, FAA recognized	Rishabh K Shah
Afternoon Break (20 minutes)			
15:05-15:50	-Performing & Documentation (including masking)	Basic, FAA recognized	Rishabh K Shah
15:50-16:35	-Comment: The foundation course for all trainees. The basic theory training for operator level.	Basic, FAA recognized	Rishabh K Shah
16:35-17:20	-Test for FAA approved Certificate	Basic, FAA recognized	Rishabh K Shah

**New Topics!  
Completely revised!**

### INTERMEDIATE / L2: November 27, 2019

Description about the courses at: [www.mfn.li/workshop/courses](http://www.mfn.li/workshop/courses)

Time	Subject	Course	Official MFN Trainer
9:00-9:10	-Official Opening of Intermediate Course / L2	-----	Rishabh K Shah
9:10-9:55	-Understanding Intensity & Saturation curves L2	Intermediate, FAA recognized	Rishabh K Shah
9:55-10:40	-Saturation curve exercises	Intermediate, FAA recognized	Rishabh K Shah
Morning Break (20 minutes)			
11:00-11:45	-Coverage L2 (development & advanced applications)	Intermediate, FAA recognized	Rishabh K Shah
11:45-12:30	-Engineering & Planning the process	Intermediate, FAA recognized	Rishabh K Shah
Lunch Break (45 minutes)			
13:15-14:00	-Air peening machines & nozzles	Intermediate, FAA recognized	Rishabh K Shah
14:00-14:45	-Peening Reciprocating Engine Applications	Intermediate, FAA recognized	Rishabh K Shah
Afternoon Break (20 minutes)			
15:05-15:50	-Peening Media L2 (specifications & testing)	Intermediate, FAA recognized	Rishabh K Shah
15:50-16:35	-Comment: For lead operator & supervisory levels	Intermediate, FAA recognized	Rishabh K Shah
16:35-17:20	-Test for FAA approved Certificate	Intermediate, FAA recognized	Rishabh K Shah

**New Topics!  
Completely revised!**



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E-mail: rishabh@mfn.li



The Trainers:  
Rishabh K Shah  
Official MFN Trainer



The Trainers:  
Shlomo D. Ramati  
Official MFN Trainer and Book Author

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

E-mail Registration Form to [rishabh@mfn.li](mailto:rishabh@mfn.li)





**ADVANCED / L3: November 28, 2019**

**Description about the courses at: [www.mfn.li/workshop/courses](http://www.mfn.li/workshop/courses)**

Time	Subject	Course	Official MFN Trainer
9:00-9:10	-Official Opening of Advanced Course / L3	-----	Rishabh K Shah
9:10-9:55	-Residual Stresses & their Measurement	Advanced, FAA recognized	Rishabh K Shah
9:55-10:40	-Fatigue & Stress Corrosion	Advanced, FAA recognized	Rishabh K Shah
Morning Break (20 minutes)			
11:00-11:45	-Optimization of SP [including nano-structuring]	Advanced, FAA recognized	Rishabh K Shah
11:45-12:30	-SP Process Improvement	Advanced, FAA recognized	Rishabh K Shah
Lunch Break (45 minutes)			
13:15-14:00	-Alternative Peening Technologies I	Advanced, FAA recognized	Rishabh K Shah
14:00-14:45	-Alternative Peening Technologies II (include rotary flap peening)	Advanced, FAA recognized	Rishabh K Shah
Afternoon Break (20 minutes)			
15:05-15:50	-Undertaking a SP audit (as an auditor)	Advanced, FAA recognized	Rishabh K Shah
15:50-16:35	-Comment: For engineering authority, specifiers, auditors	Advanced, FAA recognized	Rishabh K Shah
16:35-17:20	-Test for FAA approved Certificate	Advanced, FAA recognized	Rishabh K Shah

**New Topics!  
Completely revised!**



## MFN Workshop Location:



### Hotel Information:

**Hotel Sea Princess,  
Juhu Tara Rd, Airport Area, Juhu,  
Mumbai, Maharashtra 400049  
Tel. +91-22-26611111  
Tel. +91-22-66924455  
E-mail: [contact@seaprincess.com](mailto:contact@seaprincess.com)  
[www.seaprincess.com](http://www.seaprincess.com)**

### Courses available at MFN:

- ▶ Shot Peening L1-L3 FAA approved!
- ▶ Practical Shot Peening
- ▶ Flap Peening FAA approved!
- ▶ Blast Cleaning & Surface Preparation
- ▶ Residual Stress Measurement
- ▶ Tumbling & Vibro-Finishing FAA approved!
- ▶ Surface Enhancement Technologies
- ▶ CONSULTING: Shot Peening

Visit MFN at:

**INCASE 2019**  
International Conference on Advanced Surface Enhancement  
**10<sup>th</sup> – 12<sup>th</sup> September 2019 in Singapore**  
[www.incase2019.com](http://www.incase2019.com)

