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**EFNARC**



ITA  
INTERNATIONAL TUNNELLING  
AND UNDERGROUND SPACE  
ASSOCIATION

**ENDORSED**



## **NOZZLEMAN EXAMINER CERTIFICATION**

**15th to 17th September 2020**

**Target Group:** Experts with considerable experience in sprayed  
concret application

**Course Location:** Hagerbach Test Gallery Ltd  
Polistrasse 1, CH-8893 Flums Hochwiese  
Switzerland



## EFNARC Nozzleman Certification Scheme

Sprayed concrete applications are one of the most essential activities in underground construction. The nozzleman has significant influence during the last production step of the sprayed concrete; controlling the quality of the sprayed concrete, safety and also the economical outcome for the contractor.

EFNARC is the first organisation to develop guidelines for the certification of nozzlemen for wet sprayed concrete application which is most common in underground constructions.

On behalf of **EFNARC** the International Centre for Geotechnics and Underground Construction (**CUC**) is offering Examiner Assessment and Accreditation for the Nozzleman Certification Scheme.

The EFNARC Nozzleman Certification Scheme is not a training course; it will only offer certification to nozzlemen who have already gained the necessary experience and can demonstrate their technical knowledge and practical ability. The scheme has been developed in recognition that the construction industry requires a means of identifying expert nozzlemen. The scheme is currently limited to wet, robotic sprayed concrete and has been developed primarily for international experts.

The scheme will operate through national examiners who will assess nozzlemen for their theoretical and practical skills at their workplace. The first stage of the scheme is to identify and accredit suitable examiners through the attendance of an EFNARC Examiner Assessment Course. Nozzleman Certification will follow the successful accreditation of Examiners.

Examiner Assessment is a two and a half day course starting at 2.00 pm on the first day. Participants should arrive at their designated hotel in time for a mid-day pickup.



## **Program Nozzleman Certification Scheme**

**Day 1**    Tuesday, 15.09.2020  
Arrival, 02.00 pm

Welcome  
Introduction to course procedure  
concrete technology (theory)

**Day 2**    Wednesday, 16.09.2020  
08.00 am to 05.00 pm

Concrete technology (practical demonstration)  
Sprayed concrete application (theory and practical)  
Assessment of sprayed concrete application  
Operation of EFNARC Nozzleman scheme

**Day 3**    Thursday, 17.09.2020  
08.00 am to 04.00 pm

Assessment of participants:

- Theoretical (written test)
- Practical (assessment of nozzleman)
- Oral examination



## Organisation

Head of Course: CUC - International Centre for Geotechnics and Underground Construction  
CH-7320 Sargans

Registration: latest 4 weeks prior to the course

Application: by application form on the EFNARC website  
[www.efnarc.org](http://www.efnarc.org)

Course Fees: CHF 3'900- per person  
CHF 3'400.- ENFARC members

### Course fee includes:

Course lessons by CUC providing a summary of all contents of the certification. Assessment of participants as basis for certification. Certification by EFNARC and publication on EFNARC website. Lunch, dinner and transfer between Hagerbach Test Gallery and the hotel.

### Course fee does not include:

Hotel accommodation & breakfast (will be arranged by CUC on behalf of the participants). Transfer from and to the airport. Costs of overnight stay.

### Cancellation

If there are too few course applications the course will be cancelled. 3 weeks notice will be given, if that is the case.

Cancellations by participants are only accepted in written form and must be received by CUC at least 4 weeks before the course starts.

In all other cases, the course fee cannot be refunded.

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