

## TECHNICAL TALK ON "SINGLE STACK DRAINAGE FOR HIGH RISE BUILDINGS"

Organised by Building Services Technical Division, IEM

BEM Approved CPD/PDP Hours: 2 Hours

Ref No: IEM19/HQ/193/T

**Date** : 24 JUNE 2019 (Monday)  
**Time** : 5.30 p.m. – 7.30 p.m.  
**Venue** : Auditorium Chin Fun Kee,  
3<sup>rd</sup> Floor, Wisma IEM, Petaling Jaya, Selangor  
**Speaker** : MR. ERIC DOUMA

### SYNOPSIS

#### ***Safe water traps in high rise buildings***

Plumbing regulations call for a safe, usable and reliable drainage system. One of the primary functions of a well-designed drainage system is the minimum loss of trap water seal to protect sewer gasses from spreading smell and pathogens.

Water seals are breached by air pressures arriving in the system by water and air movement. These pressures communicate an increase or decrease in the air flow and a typical drainage system provides atmospheric air into the drainage system via a separate smaller vent pipe through the roof.

Pressure control via atmospheric air has been standardised in building codes which were made in the 1960s based on tests in 10 floor buildings, however since that time buildings have become much higher and building drainage systems are starting to fail with empty traps.

Scientific studies by the Heriot Watt University (1984 – 2009) shows that the long time it takes for pressures to communicate to the top of the building central to the (mal) functioning of the drainage system. The best way to control pressures and maintain a water seal is to provide pressure relief as close to the source as possible. The practical and most economical solution is to use a single stack drainage system with Studor Active Drainage Ventilation. This system attenuates any pressure difference immediately at the Point of Need and has been used since 2003 in many high rise buildings world-wide and has been adopted in the Australian building code.

In this talk you will learn more how over- and under pressures are influenced by slow down flow, roof top wind, sewage condition, induced siphonage and reflections of the wet stack. Furthermore you will learn that an active ventilation system can offers guaranteed protection of any trap in the drainage system for any building and a reduction of cost and installation time.

### ANNOUNCEMENT TO NOTE

#### FEES

(Effective 1<sup>st</sup> October 2017)

#### Members

Registration Fee : FOC

Administrative Fee :

Online RM15

Walk In RM20

#### Non-Members

Registration Fee : RM50

Administrative Fee : RM20

- Limited seats are available on a "first come first served" basis (maximum 100 participants).

- **To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my)**

### PERSONAL DATA PROTECTION ACT

I have read and understood IEM's Personal Data Protection Notice published on IEM's website at [www.myiem.org.my](http://www.myiem.org.my) and I agree to IEM's use and processing of my personal data

## **SPEAKER BIODATA**



**Mr. Erik Douma** graduated first in 1986 at the University of applied sciences in The Hague in The Netherlands. He holds bachelor degrees in education, commerce and management. Additionally he has studied Thermo Plastics at the TIO, University of Applied Sciences in Utrecht and Transient pressures at the Heriot-Watt University, Edinburgh.

Erik started in the plastic industry in 1997 and has been active within Aliaxis in various roles with thermoplastic pipe systems for building, industrial and utility applications. He has been technically and commercially active in Europe, Asia, Pacific, Middle East and Africa. Last 7 years he has focused on HDPE, noise attenuating- and siphonic roof drainage systems for Europe, Asia & Pacific.

His experience has evolved in 2018 to a responsibility for the business development of high rise solutions within the Aliaxis group for Asia and the Pacific region. He is in close contact with Aliaxis companies world wide concerning engineering and product management.

Nowadays, Erik assists project developers, consultants and installers with technical options in high rise projects specially for drainage systems.

**Ir. WONG WIN HENG**

**Chairman**

**Building Services Technical Division (BSTD)**