

ATUL MATHUR

C&Q (HVAC) Lead Engineer

SUMMARY

- HVAC engineer with over 15 years of experience in HVAC Design, Commissioning and Qualification (C&Q)
- Proven experience in pharmaceutical and biotech projects (GSK, Novartis, Eli Lilly)
- Ability to see the big picture, motivate colleagues and lead

CAPABILITIES

Commissioning and Qualification (C&Q)

- **Testing and commissioning:** Planning and executing HVAC testing and commissioning activities (*air and pressure balancing; testing of AHUs, FCUs, UAFs, pass boxes, fume hoods; temperature, humidity, air changes, room pressures, particle counts, room recovery, airflow pattern, etc.*)
- **Qualification:** Design, Installation and Operational (DQ, IQ & OQ)
- **C&Q documentation:** Extensive experience in writing commissioning and qualification documents (*CQWP, commissioning protocols, receipt verification, installation verification, functional testing and OQ test protocols*)

HVAC design

- **Design:** Cooling load calculations, concept P&IDs, review of layout drawings/model, equipment selection (*AHU, fan, coil, dehumidifier, LAF, etc.*)
- **Design documents:** Writing URS and technical specifications

Project management

- Ability to plan and execute; manage resources; and prevent/solve problems
- Capability to lead the team, and collaborate with other disciplines (*automation, electrical, black utilities, etc.*), contractors and clients at all levels

EDUCATION

- Master's degree in mechanical engineering from IIT, Kanpur, India (1988-1990)
- Bachelor's degree in mechanical engineering from Malaviya National Institute of Technology, Jaipur, India (1981-1986)

KEY PROJECTS

Biotech / Pharmaceutical

- GSK SG04 Capacity Increase, Singapore (PM Group): HVAC C&Q Lead (Aug–Nov'17)
- Lilly Suzhou East Lake Insulin Filling Project, China (PM Group): HVAC Commissioning & Qualification documentation and testing (Sep'15–Dec'16)
- GSK Vaccines (No Deviation): User Requirements, design calculations, concept design and technical specifications for a cold room project (May–Jun'15)
- Novartis, Singapore (NSPM): Low RH feasibility study (May–Jul'13); investigation, upgrade of flexible ducts, rebalancing of qualified HVAC systems, review of alarm management system, revision of calculation sheets (Jul'12–Jan'13)
- GSK-NIBT JV Flu Vaccine Revamping Project, China (PM Group): HVAC testing, commissioning and handover (Jan–Apr'11)
- GSK Biologicals, S'pore: HVAC design, commissioning, qualification support (DQ, IQ & OQ) and handover (Feb'07–Mar'10)
- Novartis, S'pore: HVAC Design (2006)
- Pfizer, S'pore: Investigation (2002)

Laboratories

- AMRI (Jacobs): HVAC Design
- Defence Medical Research Institute (DMRI), Singapore: HVAC design
- Eastman Kodak, Singapore: HVAC design

Semiconductor / cleanroom

- Gemplus Technologies (class 1,000): Commissioning
- Agilent technologies/HP (class 1,000): HVAC design

Data centres

- Nokia, Microsoft, Sybase, Lucent technologies: HVAC design and project management

Office / commercial / industrial buildings / hotels

- Hitachi Tower, Caltex House and SIA Building, Alexandra Technopark, Chai Chee Industrial Park: HVAC design and project management
- The Fullerton Hotel, Singapore: HVAC design
- Marina Square, Singapore: Feasibility study

PUBLICATIONS

1. Book: Writing High-Quality Standard Operating Procedures
2. Simpson, Mark and Mathur, Atul. (Jan–Mar 2002). Air-conditioning design for data processing centres. *Air-conditioning and Refrigeration Journal*. 34–43
3. Mathur, Atul. (Apr–Jun 2002). A systematic approach to reviewing the selection of chilled water fan coil units. *Air-conditioning and Refrigeration Journal*. 67–68
4. Sze, George, Lek, Siang Hwa and Mathur, Atul. (Jul–Sep 2002). Hospital air-conditioning HVAC design. *Air-conditioning and Refrigeration Journal*. 26–33
5. Stone, Richard and Mathur, Atul. (Oct–Dec 2002). Investigation of chilled water pipe condensation. *Air-conditioning and Refrigeration Journal*. 55–62
6. Mathur, Atul. (Jan–Mar 2003). Project Management-The Pitfalls. *Air-conditioning and Refrigeration Journal*. 76–81
7. Mathur, Atul. (Jul–Sep 2004). Superior service will sharpen your competitive edge. *Air-conditioning and Refrigeration Journal*. 19–24

TRAINING PROGRAMMES

1. Air-conditioning and Mechanical Ventilation: Two-day workshop for the Land Transport Authority (LTA), Singapore
2. Problem Solving in HVAC Commissioning: Half-day workshop for Indian Society of Heating Refrigeration and Air-conditioning Engineers (ISHRAE) at Mumbai, India
3. Introduction to ACMV in Pharmaceutical Facilities: Workshop organized by the International Society for Pharmaceutical Engineering (ISPE) at Singapore
4. Singapore Certified Energy Manager (SCEM)), 3-day training programme on Energy Management
5. Introduction to HVAC Validation (Ngee Ann Polytechnic at Singapore)

CONTACT

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