

Commissioning key role in DCs construction.



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**BYES is a company that
works as a General
Contractor for Data Centres
and has developed a
Business unit only for Data
Centres.**








Commissioning GOAL



Data centre Commissioning is a process that guarantees that all data centre systems and components, including servers, cooling systems, power distribution units and backup systems, are designed, installed, tested and function as Designed.

LEVEL OF COMMISSIONING

Based on the ASHRAE regulation

-  **LEVEL 0** | Design and Planning,
 -  **LEVEL 1** | Factory Testing,
 -  **LEVEL 2** | Component Delivery, Installation & Pre-Start-up,
 -  **LEVEL 3** | System Start-up,
 -  **LEVEL 4** | Functional Testing,
 -  **LEVEL 5** | Integrated System Testing,
 -  **LEVEL 6** | Closeout / Turnover / Handover
- The commissioning process is executed according to customer requirements and in detail.
 - The commissioning process already starts with the design and follows construction on site.
 - From L1 to L2 The construction on site is very important to develop the commissioning activities. Compliance for each equipment is very important to guarantee the correct execution of work on each system.



QUALITY CONTROL

By following these data center levels, the commissioning manager, owner, and facility engineers can ensure that all systems are tested, meet required standards, are fully documented, and are ready for efficient and reliable operation.

This process greatly reduces the probability of error at the design and construction stage.

+ QUALITY

- THE RISK OF FAILING

CONSTRUCTION Vs COMMISSIONING



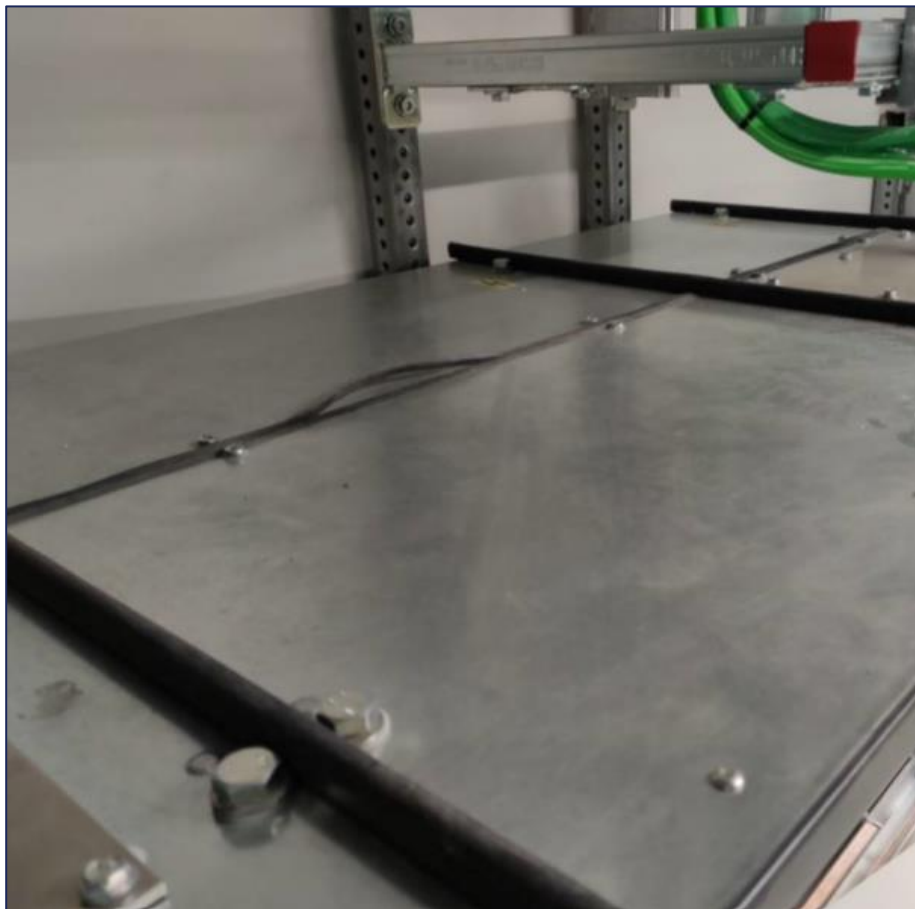
The construction and commissioning teams worked closely together. Commissioning works mainly on installations and combines the electrical and mechanical.

It also pays a lot of attention to the civil part to ensure that the necessary conditions of the building are in place to guarantee the proper maintenance, cleanliness and safety of the installed equipment.

Commissioning identifies and highlights to the construction team potential issues that need to be closed or may identify failures or incorrect installations. Resolution is critical to achieving the tag and to proceed with the commissioning process.



ISSUE RESOLUTION



BEFORE

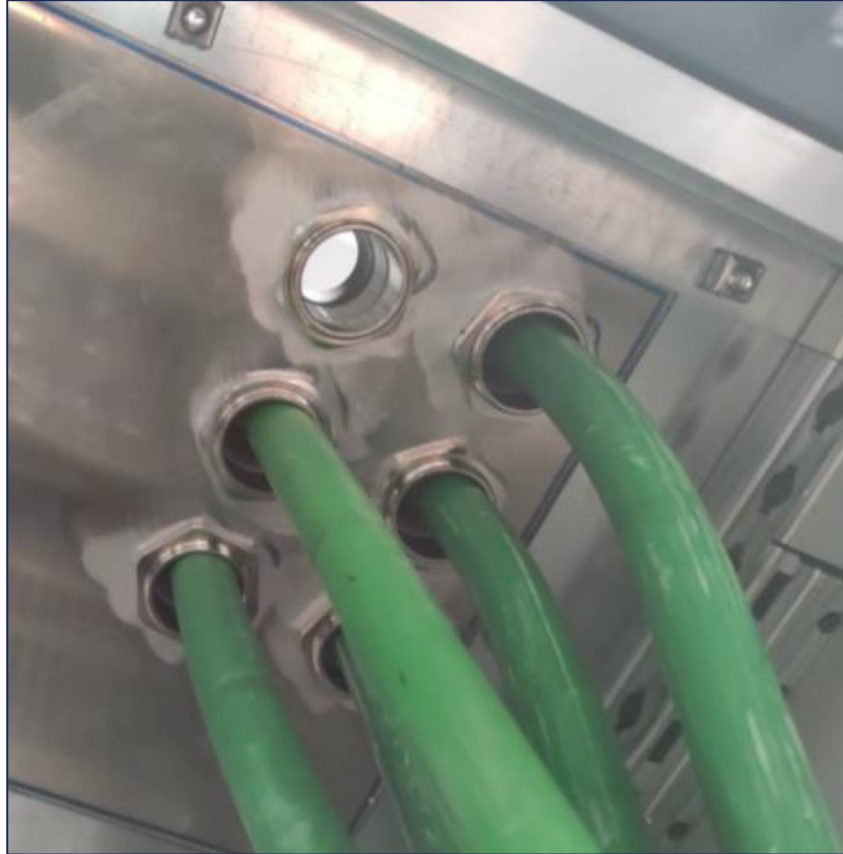
Sealing out on top of
panel



AFTER



ISSUE RESOLUTION



BEFORE

Glands open



AFTER



ISSUE RESOLUTION



BEFORE

Torque marks missing



AFTER



CONSTRUCTION PLAN VS COMMISSIONING PLAN

CHALLENGE



The construction planning is also updated and revised on the basis of obtaining the commissioning tag.

Commissioning activities can have an impact on construction planning.

The commissioning team will drive and manage the completion of the construction following the commissioning procedures.

Only the end of the commissioning process with the last level of commissioning defines final delivery of the building.