Integrated Systems

Monitoring of Wastewater from Starch Production





Objective

Process monitoring & environmental compliance

Parameter

TOC (Total Organic Carbon)

Integrated system consisting of:

- Two AnaShell type AS3000 insulated analytical cabinets (2 m x 1.2 m) with H-AC unit, lightning protection for outdoor installation
- Three BioTector B7000i TOC analysers with sandtrap sample preconditioning

Problem

Seeking improved process control and compliance with permit limits, a starch manufacturer recognised the need to monitor process and wastewater; both of which contained potentially high organic loads. However, the different sampling points were not in close proximity to each other and the customer recognised the advantages of outsourced expertise for a project of this type. The first measurement location was coordinated by an international engineering company, but the customer approached the local Hach® team directly for the second installation.

Solution

In both cases the Hach inhouse engineering team designed a turnkey monitoring solution that met the requirements of the measuring point (number of sample streams) and the installation site (available space). An AnaShell analytical cabinet now provides protection for the analysers and a safe working environment for maintenance personnel. Before delivery the entire solution underwent a factory acceptance test (FAT) to ensure instant and sustainable operational reliability on site.

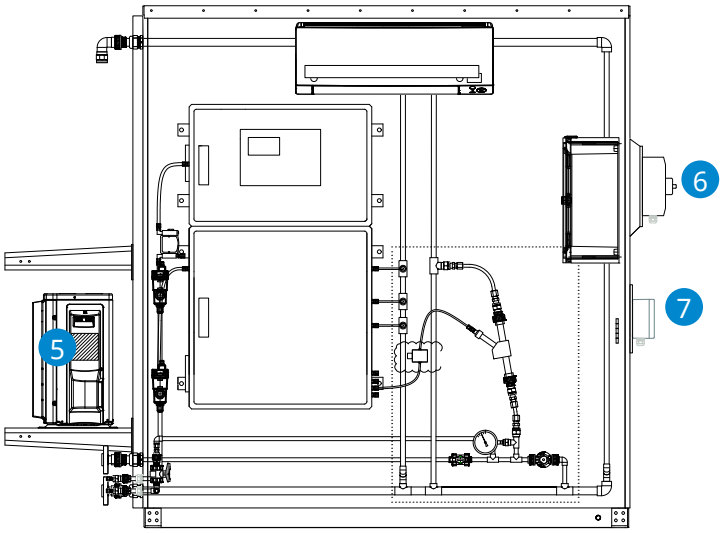
Benefits

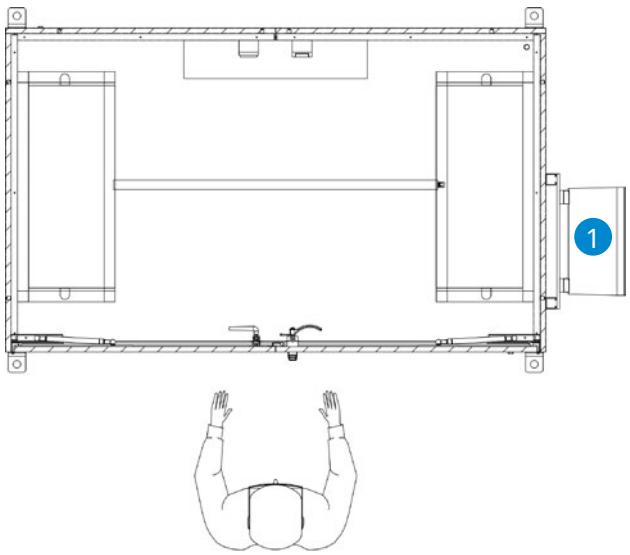
- Significantly reduced project management workload through single source supplier with engineering and application expertise
- Stable, laboratory-like conditions for optimal analytical performance of process analysers
- Fast realisation at a fixed price
- CE certification, full documentation
- Low installation effort, fast start-up

Details & Components

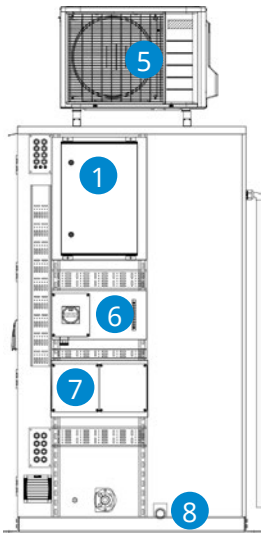








1 Local power distribution panel
2 Durable chemical resistant HPL mounting plates, modular mounting profiles
3 Individual maintenance switch for every analyser
4 Additional electrical socket
5 Air conditioning unit
6 Main Power Switch
7 Signal junction box
8 Manual drain



Standard components, arranged in a customised way to meet the individual measuring point requirements.