When design is everything

The challenge facing enclosures in the Food & Beverage Industry

Rittal's Stainless Steel range has always been one of the Industry's leading products, however, when the demands of the end user require something more we stepped to the challenge, to create an enclosure that not only met but exceeded expectations. Rittal's HD range is specifically designed to deal with the demanding environments of the F&B industry and we put it to the test against our own AE Stainless Steel Enclosure.

We wanted to prove how enclosure design is so fundamentally important for the environment it is working within - we put the best to the test.

Let's take a look at the experiment's results in further detail.

**DOOR SEAL**
- Residue can still be seen on the inside seal on the AE Stainless Steel.
- The HD seal design has prevented residue entering the enclosure, and therefore from easily entering the system.
- The HD double sealed external silicon seal has effectively prevented any gaps.
- Dirt and dirt can easily enter the AE resulting in contamination and cleaning. However in practice, the uncontrolled growth of germs might considerably aggravate the situation even further.

**HINGES**
- Cleaning has failed to remove all contaminated product from the hinges on the AE stainless steel.
- Design for the HD hinges are free of dirt as they are placed inside the enclosure.
- The HD Design ensures that all surfaces are smooth to prevent areas that harbour bacteria.

**EDGES**
- Residual deposits can be seen in the gap between the door and enclosure housing on the AE Stainless Steel. This area cannot be easily cleaned.
- Due to the seal design and the chamfer on the HD door there is no gap to allow dirt and contamination to reside, and is easily cleaned.
- No external cavity between enclosure and door.

**LOCK AND LOCK INSERT**
- Double-bit lock on the AE enclosure has left bacteria in indentations and gaps.
- The HD lock protrudes the enclosure to allow for ease of cleaning. It also poses no threat of small metal parts being broken and subsequently contaminating foodstuff.

Despite cleaning both the enclosures at 30 bar for 20 minutes, contamination remained with visible substantiation and UV light on the AE Stainless Steel, however the HD enclosure was free from any residue.