

**Nominee** | **BOC Crawley**  
**Designer** | **Mid-Anglia Engineering**  
**Title** | **Ergonomically designed cylinder filling rigs**

“ The new design is more comfortable when filling on it. ”



## BEFORE



- Previous gas cylinder filling rigs had little ergonomic design consideration, so the cylinders remained fixed at waist height.
- The challenge was that taller filling operatives were adopting poor postures to enable them to perform tasks including filling various sizes of gas cylinder bottles.
- Risk factors included upper limb disorders and potential lower back discomfort.
- Because of the fixed installation, workers were placing smaller cylinders on wooden blocks to raise them – a potential stability risk.

## AFTER



- The company engaged Mid-Anglia Engineering who designed the initial solution following consultation with them.
- A trial of the solution resulted in further modifications, and the final design included hydraulic arms installed at the end of each rig, with a floor plate attached to larger cylinders. This design allows the rig to be fully height adjustable.
- Benefits include allowing operatives to fill the gas cylinders at a comfortable height.