

The Clean Coupling Booth (CCB) provides an interface between the fab and the tanker truck for facilities with bulk chemical supplies.



Product Overview

The Clean Coupling Booth is placed on an exterior wall and has operator interfaces both inside the fab and outside for the driver. The driver engages the couplers and initiates the transfer process via the external control panel. The CCB goes through several automated safety verifications before chemical is transferred from the tanker truck to the bulk storage tank(s). Pressurized N₂ is used to transfer the chemical. Optional sampling functions enable the facility to test the purity of the chemical prior to allowing the transfer to occur.

Features and Benefits

- Numerous features designed for operator safety and chemical purity
 - Keyed couplers to prevent transfer of the wrong chemical
 - Coupling purge prior to transfer to ensure clean connections
 - Sample port to enable sampling prior to transfer
- Provides an opportunity to reduce costs
 - Reduce chemical cost-of-ownership by purchasing in bulk
 - Less manpower required for drum and tote changes
- Built in a center of manufacturing excellence
 - ISO9001 certified
 - Formal QA/QC procedures, documentation standards, and final test procedures

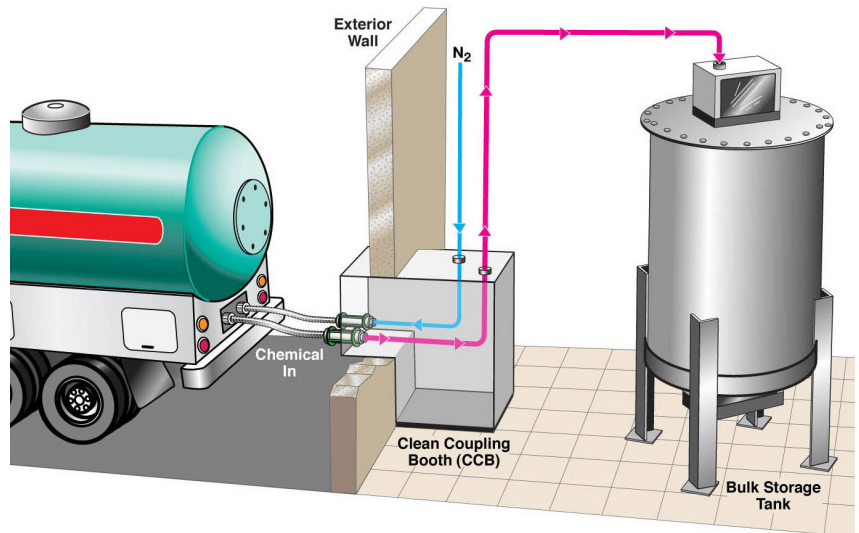
Performance and Reliability

- Uptime >99.9%
- MTBF >2500 hours
- MTTR <2 hours

Theory of Operations

When a truck arrives on-site, the driver uses the external control panel to engage the couplers and begin the flushing and transfer sequence. Process N₂ is used to transfer the chemical from the truck to a large storage tank inside the fab.

The unit includes multiple safety features to prevent leaks, over-pressurization, and the transfer of the wrong chemical. The unit can be configured to sample the chemical before allowing a full transfer.



Safety Features

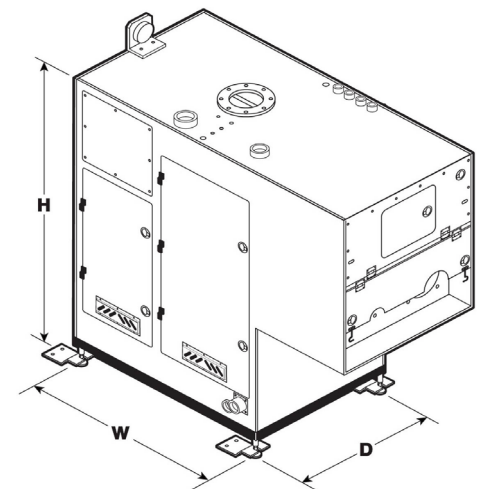
- Chemical-specific, key-coded couplers to prevent cross-contamination
- Two checks for coupler engagement: capacitive sensor for open and closed positions and automated pressure test of transfer circuit
- Pressure relief valve and transducers for N₂ to prevent tanker over-pressurization
- Cabinet rated for 110% volume containment
- Dual-level cabinet leak detection
- Door interlocks
- CDA or N₂-purged electrical compartment
- Audible and visual warnings and alarms
- Local and remote EMO
- Transparent door panels for safe viewing and trouble-shooting
- Designed for compliance with SEMI S2, S8 and S14 guidelines, and CE low-voltage, Machinery and EMC directives
- Optional UV/IR fire detection and CO₂ fire suppression for solvent systems

Typical Utility Requirements

Utility	Connection Type	Flow/Pressure
Electrical	N/A	24 VDC, 6A
CDA	1/2" SST compression	100-125 psi
Process N ₂	3/4" SST compression	100-125 psi
Exhaust	6" connection	0.5" WC minimum

Typical Cabinet Layout & Dimension

Cabinet Type	W x D x H in Inches (mm)
CCB	73" x 35" x 75" (1854 x 889 x 1905)



Clean Coupling Booth

Contact Us

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