

Concrete Mixer



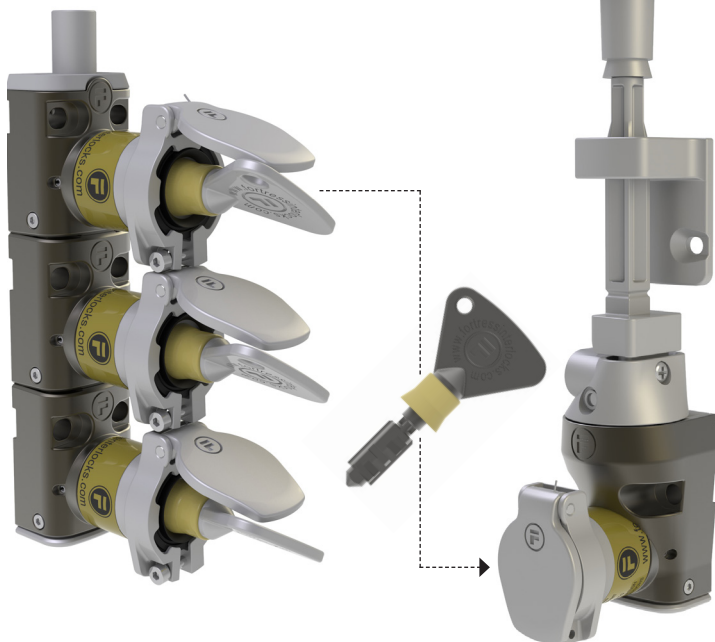
Application Requirement:

An industrial concrete mixer is used in a cement manufacturing plant to mix recently formed cement with other ingredients like aggregates, admixtures, fibres, and water to form a ready-mix concrete. Operators require access into the mixer via the hatch doors to clean the mixer at regular intervals to make sure the mixer runs at optimal efficiency. However, the access hatches must be locked to ensure entry can only be achieved once power to the mixer has been isolated.

System Schematic:

DM1-MLIS-H

BM3-MLIS-B



Fortress Solution:

BM3-MLIS-B

Bolt Module Lock

DM1-MLIS-H

Mechanical Door Lock

Sequence of Operations:

To open the hatch doors, an operator must flip the switch to the mixer's disconnect to the "OFF" position, isolating the power to the machine. Once the power has been isolated, the operator must turn the Primary Access Key in the Bolt Module unit to protrude the bolt vertically, locking the disconnect switch in place. Once the Primary Access Key is released, the other two other Access Keys can be turned and removed if multiple hatches need to be opened at once. The Access Keys are then taken to the Mechanical Door Locks on the hatch openings. Inserting and turning the key to the locked position will release the actuator, allowing the hatch to be opened. The Access Key will be trapped in the lock until the actuator has been returned to the head of the Mechanical Door Lock.