



CEMENT SILO SAFETY

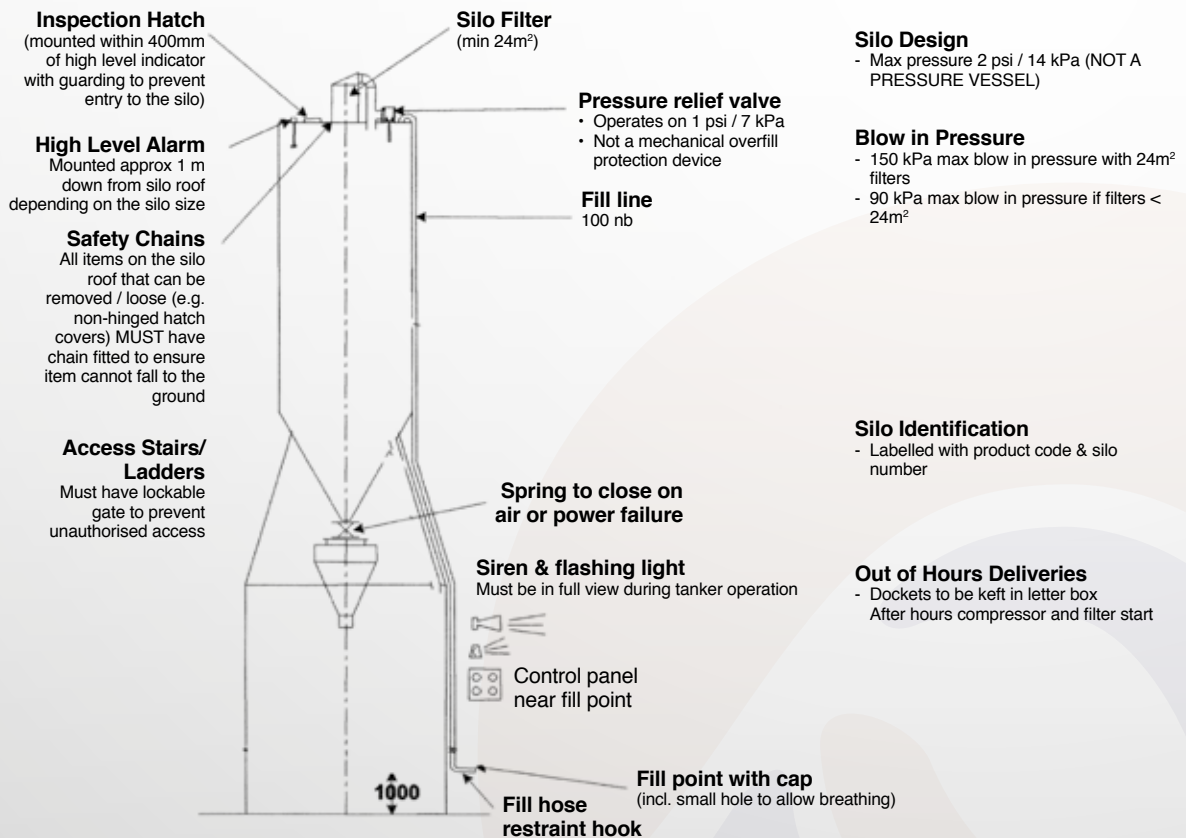
HAZARD IDENTIFIED

This NZRMCA Safety Alert addresses the use of pneumatic pressure systems in the delivery and storage of cementitious product to sites.

The main areas of concern are listed below. A preventative maintenance program and rudimentary fault report template are also included.

- All gravity silos must have a working alarm system, and its operation must be checked weekly. For non-self-test systems the Bin-Dicator must be checked monthly.
- All gravity silos must have an over pressure valve that is maintained monthly.
- All gravity silo filters must be working and have a minimum surface area of 24m². The filter's operation must be checked weekly and inspected and serviced three monthly.
- Six monthly inspections of plant and equipment.
- Ensure maintenance and alarm activation records.
- Annual certification of pressure silos and air receivers (by third party inspectors).
- Two yearly site audits by cement supply company.
- Full training for anyone operating any equipment including pressure vessels.
- Do not tamper with any safety device, including high level alarm systems, pressure vessel safety valves and silo over pressure valves.

MINIMUM SILO DESIGN REQUIREMENTS





CEMENT SILO SAFETY

PREVENTATIVE MAINTENANCE PROGRAM CONCRETE PLANTS

DAILY		
Compressors	Check oil level / leaks / damage	Top up
Drain Air Tanks	Check for damage / leaks / wear	Report / Repair / Replace
Gauges / Controls	Check for damage / function	Report / Repair / Replace
Moisture traps	Drain / Check for leaks/damage	Report / Repair / Replace
Conveyor Belts	Check for damage / function	Report / Repair / Replace
WEEKLY		
In line oilier/s	Check oil level / condition	Top up
Air Ram/s Gates	Check function / leaks	Report / Repair / Replace
Silo filters	Check function / leaks	Report / Repair / Replace
Silo alarms	Check test function	Report / Repair / Replace
MONTHLY		
Safety Valves	Check function / leaks	Report / Repair / Clean
Compressors	Clean Air filter / Pre cleaner etc.	Report / Clean / Replace
In line oilier	Check oil level / Condition	Remove / Clean & Refill
Silo Safety Hatch	Check / Clean	Clean Inside & Lid Seal
Hatch Lids	Check / Clean	Clean Inside & Lid Seal
Belts/guards/pulleys	Check for wear / damage	Report / Repair / Replace
Grease bearings	Bin gates /Agg belt rollers etc	Report any wear /damage
THREE MONTHLY		
Silo filters	Check for wear / damage / Clean	Report / Repair / Replace
SIX MONTHLY		
Compressors	Full service	Change Oil / New Filters
Drive Gear Boxes	Check oil level / condition	Top up / Report
Plant Audit	Check for wear / damage / rust	Report / Repair / Replace
Site Audit		Report / Repair / Replace
TWELVE MONTHLY		
Pressure Vessel Certification	Inspection by Third party inspection body	Inspect / Report / Repair / Replace
TWENTY FOUR MONTHLY		
Site Audit	Audit carried out by cement supplier	Report / Repair / Replace

