

# 5. RISK ASSESSMENT — 5x5 MATRIX

## RISK RATING KEY

### LOW (1-4)

Acceptable – maintain existing controls

### MEDIUM (5-9)

Tolerable – review and improve controls where possible

### HIGH (10-16)

Unacceptable without further action – act now

### CRITICAL (17-25)

Stop work – immediate remedial action required

Likelihood: 1=Very Unlikely 2=Unlikely 3=Possible 4=Likely 5=Almost Certain Severity: 1=Negligible 2=Minor 3=Moderate 4=Major 5=Fatal Score = Likelihood x Severity

Hazard	Harm / Who at Risk	Control Measures	PPE Required	L	S	Pre Risk	L	S	Post Risk
Manual handling of heavy or awkwardly shaped materials (e.g., cement bags, aggregates, water buckets).	Musculoskeletal injuries, including strains, sprains to the back, shoulders, and limbs. Potential for trapped fingers or toes, and minor cuts or abrasions from sharp edges.	<ul style="list-style-type: none"> <li>Implement a robust manual handling assessment prior to task commencement. Utilise mechanical aids such as pallet trucks, sack barrows, or forklifts where feasible for transporting bulk materials. Ensure all operatives are trained in correct manual handling techniques. Promote team lifts for items exceeding individual handling limits. Maintain clear, unobstructed access routes and working areas.</li> </ul>	Safety footwear, appropriate general-purpose work gloves (e.g., rigger gloves), high-visibility clothing.	4	3	12 HIGH	2	2	4 LOW
Contact with moving parts of mortar mixers (rotating drum, paddles, drive mechanisms); electrical faults; excessive noise.	Traumatic injuries including crushing, lacerations, entanglement, and potential amputations from moving parts. Electric shock or electrocution. Noise-induced hearing loss or tinnitus.	<ul style="list-style-type: none"> <li>Ensure pre-use checks are completed on mortar mixers and associated electrical connections prior to each shift. Implement robust lock-off procedures (LOTO) for any cleaning, maintenance, or unjamming activities. Ensure all machine guards are correctly fitted and maintained in position. Electrical supply must be RCD protected. Position mixers on stable, level ground and secure against movement. Only authorised and competent operatives are permitted to operate machinery. Provide and ensure use of suitable hearing protection.</li> </ul>	Safety footwear, appropriate gloves, eye protection, hearing protection, high-visibility clothing.	4	4	16 HIGH	2	3	6 MEDIUM
Inhalation of respirable crystalline silica (RCS) from cement dust; skin and eye contact with alkaline wet cement, lime, or chemical admixtures.	Severe respiratory diseases (e.g., silicosis, Chronic Obstructive Pulmonary Disease - COPD, occupational asthma), from inhalation of respirable crystalline silica (RCS) present in cement dust. Severe dermatitis (e.g., chrome allergy), alkaline burns to skin and eyes, or chemical burns from contact with wet cement, lime, or admixtures.	<ul style="list-style-type: none"> <li>Implement comprehensive Control of Substances Hazardous to Health (COSHH) assessments for all materials, including cement, lime, and admixtures. Utilise engineering controls to minimise dust generation, such as wet mixing techniques and local exhaust ventilation (LEV) or on-tool extraction where appropriate. Ensure adequate general ventilation in mixing areas. Provide suitable washing facilities and promote robust personal hygiene practices (e.g., washing hands before breaks and at end of shift). Provide and ensure correct use of appropriate Respiratory Protective Equipment (RPE) and Personal Protective Equipment (PPE) as specified in COSHH assessments. Store and handle chemicals according to Safety Data Sheet (SDS) guidance.</li> </ul>	FFP3 valved disposable respirators or powered air purifying respirators for dust. Chemical-resistant gloves, eye protection (e.g., sealed goggles or face shield), long-sleeved protective clothing, safety footwear.	4	4	16 HIGH	2	2	4 LOW
Falls from height whilst	Serious fractures, internal	<ul style="list-style-type: none"> <li>Ensure all scaffolding is erected by competent personnel to</li> </ul>	Safety helmet,	4	5	20	2	2	4