FP McCann’s silo mortar provides an efficient mortar solution to a wide range of external and internal works, dependent on structural requirements.

The dry mortar mix consists of cementitious materials, air-entraining admixtures, and graded fine aggregate (sand) and is delivered to the required site in our portable, sealed silo containers that have a built-in automated mixing system. Once water and power has been connected to the mixing unit on-site, the dry mortar is mixed with water at the push of a button, resulting in a consistent high-quality mix that is easy to use.

APPLICATIONS
- BRICK, BLOCK, STONE, PAVING SLAB LAYING
- BEDDING
- REPOINTING
- GENERAL MASONRY REPAIRS

THE BENEFITS
- QUALITY ASSURED
  FP McCann’s mortar silos produce a consistent mix that delivers a constant high quality finish and conforms to BS EN 998-2 standard mortar strength.
- COST-EFFECTIVE
  Reduced long-term costs - no wastage, fewer deliveries and less manpower required. No need to retard mix.
- INCREASED PRODUCTIVITY
  No delays due to adverse weather. Ready-made mortar means less time mixing and more time applying.
- CONSISTENT STRENGTH AND WORKABILITY
  Computer-controlled mixing provides a constant reliable consistency.
- ENVIRONMENTALLY FRIENDLY
  The large silo capacity means fewer deliveries and less environmental impact. Less noise pollution compared to using traditional mixers.

For further information on our dry silo solutions, contact our sales team at Knockloughrim on 028 7964 2558 or Email sales@fpmccann.co.uk
DRY SILO MORTAR

TECHNICAL DATA

CARE OF EQUIPMENT

The Dry Mixing Silo should be treated with care at all times, since any damage to the switches or apparatus on the mixer or control panel could interfere with the normal operation of the system, particularly when site vehicles are used to load and transport the mortar. Any damage or modifications made to the silo or associated equipment must be reported to FP McCann immediately. The customer will be held liable for all damage which results from the misuse of the silo. FP McCann will provide relevant training for customers and staff using silos. Customers are responsible for ensuring that only trained operators use FP McCann Dry Mixing Silos and that the correct procedures covered in the training sessions are followed by operators:

When the Dry Mixing Silo is correctly set up on site, FP McCann will test it to make sure that it is operating correctly. No attempt whatsoever should be made to use the Dry Mixing Silo until it has been fully commissioned for use by the relevant FP McCann personnel. Furthermore, new users should not use the system until they have been fully trained in the correct operating procedures by FP McCann.

DAILY USE

Initial procedure on delivery and every morning:

1. Position mortar container under discharge channel.
2. Connect control panel, power leads, and then water pipes.
3. Switch on mixer briefly to check direction of motor.
4. Switch on mixer. NB. Always run mixer with water first before opening butterfly valve.
5. Open butterfly valve on the silo.
6. Adjust water using the water flow control valve, as required.

DAILY CLEANING

At the end of each day, during long interruptions in mixing and before collecting an empty silo, the following shut down and cleaning process must be adhered to:

1. Close butterfly valve on the silo.
2. Remove all remaining material in the mixer until the water runs clear from the mixer. (This should take approximately five minutes)
3. Wash mixer cover, remove it, if necessary, to eliminate hardened build-up.
4. Disconnect water pipes, then remove the control panel and store it in a warm, dry, secure location.

WEEKLY CLEANING

1. Carry out the daily cleaning process.
2. Remove the mixing section and screw.
3. Clean thoroughly.
4. Reassemble.

HOT WEATHER

During hot weather, if the mixer is stopped for more than 1 hour, the daily cleaning process must take place.

WINTER WEATHER

Freezing water can seriously damage the control panel and the water fittings. Ensure that the water fittings are always completely drained, when applicable – during long breaks and after the mixer.

MORTAR & RENDER APPROXIMATE SPREAD RATES

<table>
<thead>
<tr>
<th>Mortar</th>
<th>Render</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 tonne of Mortar will lay (10mm joint):</td>
<td>1 tonne of Silo Render when mixed will cover:</td>
</tr>
<tr>
<td>1300 Standard Bricks</td>
<td>10mm thick 69m² approx</td>
</tr>
<tr>
<td>650 100mm Solids on Edge</td>
<td>12mm thick 55m² approx</td>
</tr>
<tr>
<td>325 100mm Solids on Flat</td>
<td>15mm thick 34m² approx</td>
</tr>
<tr>
<td>325 215mm Hollows</td>
<td>24mm thick 27m² approx</td>
</tr>
</tbody>
</table>

1.40 tonne of Dry Mortar @ 16.5% water content = approx. 1m³ of Fresh Mortar
20 tonne of Dry Mortar = approx. 14.3m³ of Fresh Mortar approx.

20 tonne of Dry Silo Render = approx. 14m³ of Fresh Render @ 15 / 16% water content for workability.
SILO LOCATION

The following must be considered:

- Ensure silos are not placed in areas accessible to the general public.
- Ensure silos are not placed where there are overhead wires or other obstructions to the placing, removal or filling of the silo.
- Ensure a minimum height clearance of 7 metres is achieved.
- Ensure silos have adequate access to permit filling by road tanker.
- Ensure silos are placed away from boundary fencing, where possible, and consideration is given to necessary precautions to control and contain dust as a result of spillages, abnormal emissions or mechanical failures.
- Ensure space is left beside the silo for a second silo, if applicable.
- The customer is solely responsible for safety and access during delivery, collection and filling of the silo.

ELECTRICAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>Water Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 phase 415v 16A or Single phase 230v 32A</td>
<td>Standard ¾” tap, with water tank supplied where required</td>
</tr>
</tbody>
</table>

SITE SURVEY

FP McCann personnel should complete a site survey prior to silo delivery. If site requirements are not met, FP McCann will be unable to provide the silo to the customer.

SILO BASE

Silo site locations must have suitable foundations in place and meet the working space criteria, prior to silo delivery. The silo must not be raised or blocked in, unless previously agreed in writing with FP McCann.

It is the customer’s responsibility to ensure that construction meets the following:

- Minimum 3m x 3m base.
- Minimum compressive strength 35MPa reinforced concrete ~150mm thick, to support at least 42 tonne weight
- Flat and level to ensure even bearing of silo base.

Power Requirements

Water Requirements

3 phase 415v 16A or Single phase 230v 32A

Standard ¾” tap, with water tank supplied where required
HEALTH & SAFETY
Avoid contact with skin. Mortar is an irritant that could potentially cause contact dermatitis or serious burns. Suitable protective clothing and eye protection should be worn. If contact with the skin occurs, immediately wash the affected area with soap and water. If contact with the eyes occurs, immediately wash eyes with plenty of clean water. If the mixture is accidentally swallowed, thoroughly wash mouth out with clean water, followed by drinking plenty of water to help flush out any remaining particles.

MIXING
Prior to application, this easy-to-use general purpose mortar only requires water to be added to the mix. When ordering in bulk, an appropriate mechanical mixing station should be used in combination with water to achieve the desired workability. Consistent water pressure/flow rate should be maintained. Provided that the mixed mortar is stored in a covered non-porous container, it will remain usable for up to 4 hours. Extra water should not be added past its working life, nor should the mortar be reworked. Excessive water will weaken the mix, adversely affect its strength and delay setting times. All required plasticisers are already incorporated into the mix. Further admixtures, cement or lime should not be added to the mix.

APPLICATION
All work should be carried out using best practices, national standards and the guidance of the Mortar Industry Association. As a general rule of thumb, mortar joints should be trowelled to around 10mm thickness. In the case of high ambient temperatures high absorbency masonry units and/or, rapid moisture loss from the mortar should be prevented by pre-wetting the masonry units.

Since extreme summer and winter weather can affect the integrity and appearance of the mortar, suitable protection should be used on the newly erected masonry. For example, polythene sheeting or Hessian should be used to protect the mortar from the effects of frost and rain, and to prevent rapid drying in excessively dry or windy conditions. Building with wet blocks or in cold conditions may retard the setting of the mortar. Previous day’s building work should be checked to ensure it is set and suitable to receive further courses.

QUALITY
This product is manufactured in a factory controlled environment under an integrated management system and is third party certified to BS EN ISO 9001 and BS EN ISO 14001 using fine aggregates conforming to the requirements of BS EN 13139, cements conforming to BS EN 197-1, admixtures to BS EN 934-3 and, where required, pigments conforming to BS EN 12878.

RESTRICTIONS
During application, masonry and site temperatures should be between 5°C and 35°C until the mortar has achieved sufficient strength to prevent damage. Weather will affect the setting of mortar and will proceed more slowly when it is colder. Therefore, it is inadvisable to continue with the construction of masonry whilst the temperature is below 3°C. Frozen materials should never be used. Working time is dependent on specific usage and site conditions. While efflorescence and lime bloom can occur naturally on all cementitious materials and look a bit unsightly, it doesn’t affect the performance of the mortar. Since it occurs more often in cold damp conditions, good site practice will minimise their occurrence. FP McCann will accept no responsibility for the occurrence of efflorescence or limebloom.