



THINKING PRECAST?
THINK FP MCCANN

AGRICULTURE PRODUCTS

QUICK REFERENCE GUIDE





FP McCann is the UK's market leader in the manufacture, supply and delivery of precast concrete solutions. Our comprehensive precast concrete business extends to include:

**AGRICULTURE | ARCHITECTURAL PRECAST
BOX CULVERTS | BUILDING PRODUCTS
DOCK LEVELLERS | DRAINAGE | FENCING
FLOORING | POWER & INFRASTRUCTURE
RAIL | SPECIALIST PRECAST
STRUCTURAL PRECAST | TANKS & CHAMBERS
TUNNELS & SHAFTS | WALLING**

Modern manufacturing plants at Alnwick (Northumberland), Armagh (Northern Ireland), Byley (Cheshire), Cadeby (Warwickshire), Drakelow (Staffordshire), Ellistown (Leicestershire), Grantham (Lincolnshire), Lisnaskea (Northern Ireland), Littleport (Cambridgeshire), Lydney (Gloucestershire), Magherafelt (Northern Ireland), Telford (Shropshire), Uddingston (Lanarkshire) and Weston Underwood (Derbyshire) incorporate the latest computerised batching, distribution, casting, curing and handling systems and are operated by skilled and experienced workforces to ensure consistency of quality. Their geographical spread gives us an unrivalled ability to serve the construction industry throughout the UK and Ireland.

By applying the DFMA principles, FP McCann's design engineers are able to evaluate individual precast concrete products part by part, in addition to documenting the assembly process step by step. This allows them to generate the cost, part count and assembly time to provide a benchmark to measure its success and identify the parts and process improvement opportunities. In turn, this has allowed FP McCann to design and manufacture more cost-effective and efficient high-quality precast concrete products with less wastage and greater on-site recycling. As a result, increased productivity, combined with a reduction in production time and costs, allows FP McCann to be more competitive within the marketplace.

Please note: all information is correct at time of going to print.



FP McCann has been supplying the agricultural industry with quality precast concrete solutions for over 60 years. Our agricultural range includes solutions for livestock dairy buildings, bulk storage such as grain, crops, fertiliser, slurry storage, silage and much more. We deliver to any part of the UK and Ireland, meeting your requirements with affordable and safe solutions.

Our valued customer relationships drives FP McCann to develop better products, in addition to adapting existing products to best meet the needs of farmers and farm building contractors. We remain committed to the agricultural community by developing high-quality products that are built to last and can be quickly and easily installed, ensuring on-time delivery.



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LIVESTOCK BUILDINGS



Prestressed concrete panels are an ideal, hygienic solution for containing all types of livestock. The 80mm thick prestressed panels are lightweight and quick to install, providing superior strength to withstanding impact load from livestock. The prestressed manufacturing process provides built-in strength and resilience, whilst using less concrete results in a better engineered and more cost-effective solution.

PRODUCT FEATURES & BENEFITS

- The panels are all manufactured to BS-EN 1992 standard
- Cast-in fixing sockets assist with efficient installation
- No foundation required
- Tailor-made lengths and a variety of widths
- Easily washed down
- Smooth impervious surface
- Panels absorb minor accidental damage from livestock
- Horizontal and vertical panels available



SILAGE PANELS/ L WALLS

Silage panels are one of the most durable panels that are produced by FP McCann. FP McCann recommends a variety of panels for silage, depending on your individual requirements. Silage panels are made from high-quality prestressed concrete designed in accordance with BS 5502. As an alternative to prestressed panels, FP McCann can supply precast L wall units that are Eurocode compliant.

PRODUCT FEATURES

- Prestressed concrete panels for maximum strength
- 3 equally reliable product options available, each with their own added benefits
- Tongue and groove joints for easy alignment and sealing
- Quick and easy to install
- Vertical panels are an effective way of constructing a permanent bunker. Generally double loading panels are available for dividing walls

Horizontal panels are ideal for supporting against columns of a building or within the flanges of stub columns of an open bunker. The stub columns may be designed to allow the later addition of a roof to cover the silo, or form a building to the outside. Panels are provided on a supply-only basis, conforming to all relevant standards and regulations.

Precast L wall units are an effective solution for silage clamps and are produced in heights from 1m up to 3.75m. They can be loaded one side or both sides and can be placed in bays either sitting near existing walls or using corner units to create a complete L wall system. Again, there is no steel required for this option, adding an even greater advantage.

STANDARD SIZES

The loading 18 kN/m³ is approximately a bulk density of 1800 kg/m³

Height (mm)	Width (mm) straight unit	Width (mm) corner unit	Weight (kg) straight unit	Weight corner unit (kg)
1500	1000	1000	631	1046
2400	1000	1100	1230	3000
3000	1000	*1500	1740	*2070
3660	1000	N/A	2500	N/A

* 2 sections

GRAIN & CROP STORAGE

PRESTRESSED HORIZONTAL PANELS

The versatility of FP McCann's Horizontal Panels makes them ideal for creating flexible storage bays of all sizes with a range of thicknesses. Our prestressing process provides enormous strength over a precast panel, making our panels ideal for securely containing grain and other crops. Our controlled factory engineering allows us to work with you to specify an affordable solution to meet your requirements. Horizontal panels typically fix to the steel frame of the building and do not require foundation or casting into position.

Dimensions - Horizontal Panel					
(a) Panel Height	1.0m	1.2m	1.5m		
(b) Panel Thickness	80mm	120mm	160mm	200mm	240mm
(c) Panel Length	To suit the project, limited by load/span and handling considerations				

PRESTRESSED VERTICAL CANTILEVER PANELS

FP McCann's Vertical Cantilever Panels are cast-in to position using cradles prior to construction of the floor slab. Panels sit together cleanly with vertical tongue and groove edges sealed together. Vertical Cantilevers have the added advantage of being used when the steel frame is not able to support the panels.

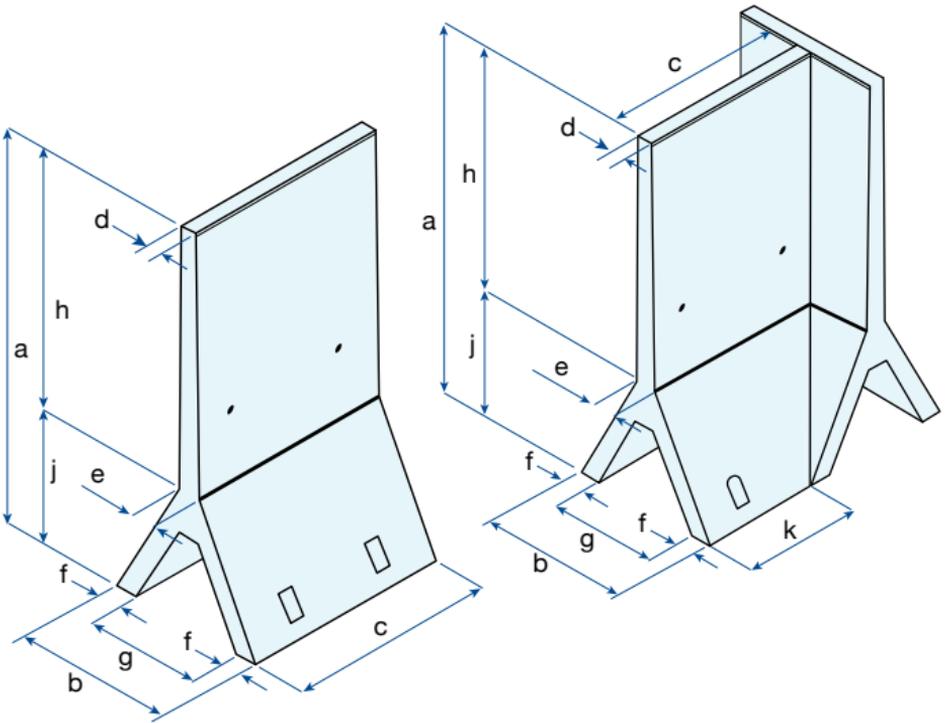
Dimensions - Vertical Panel				
(a) Panel Lengths	To suit the project, limited by load/span and handling considerations			
(b) Panel Thickness	120mm	160mm	200mm	240mm
(c) Panel Widths	1.5m standard, 1m and 1.2m special order			

Note: This product is not manufactured in NI.

PRECAST ROCKET WALL

Our Rocket Wall precast unit is an alternative to panels for storing grain and other cereals. These units come in three heights, 2.4m, 3m and 4m and are all the same 1.25m width; by design, these units are freestanding and require no base fixing for level fill grain storage. If surcharged (heaped) grain storage is required, then we recommend that the precast units are bolted to an existing level floor using Excalibur bolts into pre-drilled holes, then grouting over and sealing the joints. Rocket Walls can also be re-sited after the grain has been removed with relative ease, giving the option to reuse the storage area for alternative purposes.

The Rocket Wall units can support up to 16kN/m³ and can be loaded from both sides making them a versatile, fast and effective way to store grain and other cereals. Alternatively, use them to create a dividing wall within a shed to increase storage options.



Please note: A-J measurements are in mm.

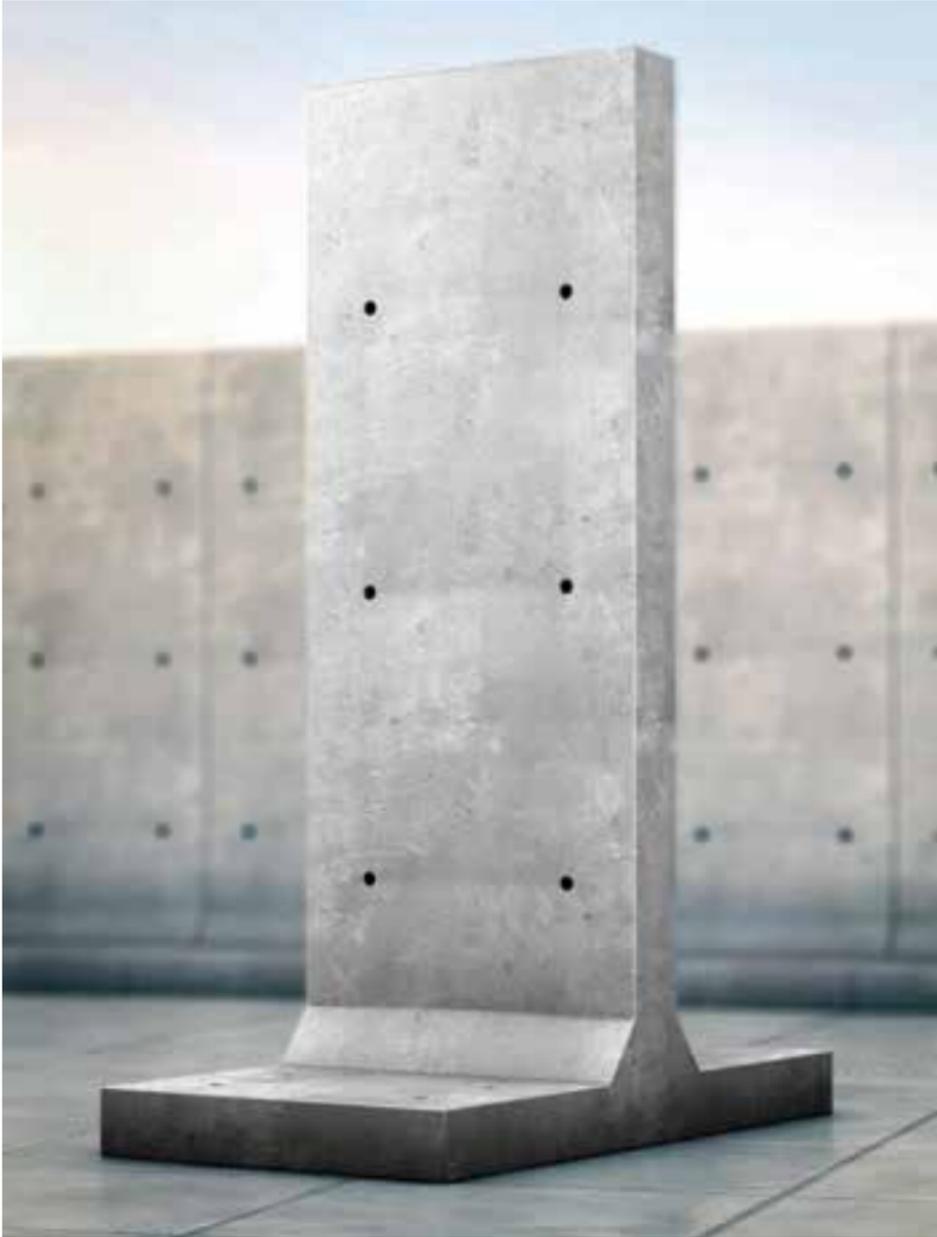
Dimensions - Rocket Wall (Straight)										
Height (m)	Weight (kg)	a	b	c	d	e	f	g	h	j
2.4	1100	2400	970	1250	100	131	131	710	1600	800
3.0	1860	3000	1200	1250	110	150	165	870	2000	1000
4.0	2820	4000	1650	1250	941	691	851	280	2600	1400

Dimensions - Rocket Wall (Corner)											
Height (m)	Weight (kg)	a	b	c	d	e	f	g	h	j	k
2.4	1091	2400	970	1200	100	131	131	710	1600	800	759
3.0	1842	3000	1200	1200	110	150	165	870	2000	1000	680
4.0	Steel corner infill assembly										

Please note: A-K measurements are in mm.

T WALLS

T wall units are an ideal product where speed of installation is necessary. They offer a fast, cost-effective solution to constructing retaining and containing developments. Standard sizes range from 2m high up to 4m high with a width of 1m for all unit sizes.



Unit height (mm)	Weight code 1 (kg)	Weight code 2 (kg)
2000	2304	1632
2500	2544	1872
3000	2784	2112
4000	3600	3360

PRODUCT BENEFITS

- Large range of sizes available
- Quick and easy installation
- Create storage bays without imposing a load to the building frame
- Can retain material on both sides
- Retain material up to 18kN/m³

EASI-BLOC



Easi-Bloc is a precast concrete block offering solutions where limited space is available for containment. They are simplistic in design, allowing for effortless handling and speed of installation. Easi-Bloc comes in two sizes making them ideal for a variety of applications.

Easi-Bloc contains a central cast-in lifting loop for ease of handling and installation. Products are manufactured to comply with the requirements of BS EN 1992-1-1:2004.



PRODUCT BENEFITS

- Cost-effective
- Interlocking design for easy alignment and added security
- Quick installation
- Durable
- Cast-in lifting pin makes them easy to lift
- Reusable product

APPLICATIONS

- Segregation
- Temporary road blocks
- Agricultural storage bays suitable for grain, silage, etc.
- Earth retention
- Partition walling
- Landscaping
- Retaining wall

Length (mm)	Width (mm)	Height (mm)	Weight (kg)
1200	600	450	750
600	600	450	375
*1400	700	700	1700
*700	700	700	850

* NI only

DAIRY SYSTEMS

Ever since cows were first housed, the effective removal of the manure, slurry and the cleanliness of the cows have been primary objectives. The FP McCann slatted cubicle building comes close to achieving this ideal.

FP McCann's prestressed concrete stock walling is ideal for containing livestock, providing a smooth surface for quick wash down. Stock wall panels are 80mm thick and are made to suit your desired lengths; tongue and groove joints allow for very quick installation with a clean finish.

FP McCann recommends using tractor-loading slats within the building, up to a 4 tonne axle loading weight. The central feed passage and specified areas are designed for much greater holdings. The collection yard can be totally slatted, generally at least 3m away from the parlour entrance, or can be scraped or washed into a channel. Either of these options can then be fed into the main tank if levels and proximity allow. Slurry is extracted by tanker, pump or, by umbilical system. Sumps at one or both ends are provided and inspection/access hatches can be distributed around the building. Slurry is conditioned automatically with the Aeromixer or other options, which keeps it constantly agitated, available for spreading, and reduces smell.

PRODUCT FEATURES

- Cleanliness and comfort of cows and building
- Provide adequate slurry storage
- Low running & maintenance costs
- Exclusion of rainwater
- More economical use of space, no external slurry stores and associated concrete areas
- No disturbance to the cows. Enhanced foot health, drier and harder
- Lower labour requirement. Slatted floors for better efficiency and strength

A light, automatic scraper can be run down the passage if necessary, however, you may find that the slats remain clean enough as there will be almost no slurry to remove. To assist with cleanliness, FP McCann recommends using sawdust or chopped straw for bedding rather than sand.

CATTLE SLATS

FP McCann produces a range of agricultural cattle slats, ideal for use over slurry channels, underground tanks or as part of a suspended floor system.

All cattle slat products are manufactured in accordance with BS 5502 and ISO 9001, ensuring that quality, durability and animal welfare are at the heart of the design and manufacture. The cattle slat products are suitable for use as floors for livestock and are made from high-strength reinforced concrete, designed to withstand the pressure and demands associated with livestock management over a considerable time period. These products are suitable for use with all classes of livestock loading, shown in Table 5 of BS5502: Part 22, including the maximum vehicle loadings.

PRODUCT BENEFITS

- Axle bearing load of 4.5 tonnes
- Edges designed to prevent injury to cattle
- Tapered sides to allow easy access for slurry tank
- Excellent space to surface ratio
- One-man operation for safe mixing or slurry removal from effluent tank
- Hardwearing non-slip surface
- Gang slats
- Cattle and multi-purpose slats available
- Access slat with manhole
- Diagonal slat to cover slurry channels

PRODUCT APPLICATIONS

Cellars / Channels / Dairy farms

GANG AND SAFETY SLAT SIZES

Stock/Nominal Size	8ft/ 2.4m	9ft/ 2.7m	10ft/ 3.0m	11ft/ 3.3m	12ft/ 3.6m	13ft/ 3.9m
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SLURRY STORES



FP McCann's slurry panels are made from high-quality prestressed concrete, designed in accordance with BS 5502.

PRODUCT FEATURES

- Above and below ground options
- Tongue and groove joints for easy alignment and sealing
- Access to store with machinery
- Choice of ways to handle slurry

Slurry would normally be pushed over a retaining wall using a tractor or automatic scraper. However, if appropriate, a ramp, underground pipe, mechanical loading system or pump may be utilised instead. When emptying the store, it can be pumped or removed by a vacuum tanker. Solids can be removed by a tractor bucket via a ramp. Our ramp panels are ideal for ease of construction and minimal loss of capacity within the store.

A properly designed strainer box would allow dewatering of the store to increase capacity for solids. The remaining muck can either be handled as a semi-solid or a slurry, if sufficient liquid is retained to allow agitation. The management of the store during the winter is of prime importance to ensure that this simple system works efficiently. Freestanding panels with slots are designed to give maximum separation and to minimise jetting, allowing the liquid to transfer via a perimeter gully to a holding/settlement tank. Separation of the liquids and solids can make handling easier and is particularly useful if low volume irrigation through the winter period is permissible.

WATER TROUGHS



FP McCann offers a range of high-quality precast water troughs for the agricultural sector. Our precast concrete water troughs provide a strong, reliable and quick fit solution for cattle drinking requirements.

Due to the weight of the concrete water troughs, less time is required to fit and install them as they are able to sit under their own weight. Unlike plastic troughs, the robustness of the precast water trough removes the risk of the trough losing shape or being pushed around by livestock.

Our precast concrete water troughs are available in four sizes.

PRODUCT BENEFITS

- Versatile - can be easily moved to a different location using the correct lifters
- Durable - maintains shape in all conditions and centre core pipe is protected from frost etc.
- Safe - no sharp edges and centre core pipe is protected from livestock
- Drainage - can be easily drained to allow for cleaning and transportation
- Indoor or outdoor – the strength of our water troughs means they can be used indoor or outdoor in any weather conditions

PRECAST WATER TROUGH SIZES

Capacity	Length (M)	Width (M)	Drinking Height (M)	Weight (T)
75 Gallons / 340 Litres	1.7	0.8	0.5	0.75
150 Gallons / 680 Litres	2.1	0.9	0.7	1.10
200 Gallons / 909 Litres	2.2	1.1	0.7	1.30
300 Gallons / 1365 Litres	2.5	1.2	0.8	1.73

DIRTY WATER/ EFFLUENT TANK

The precast dirty water tank is used to store all forms of dirty water and is available in a range of sizes, depending on the estimated volume of effluent produced. All tanks come complete with solid lids.

PRODUCT BENEFITS

- Speedy installation, no ready-mixed concrete backfill required
- One piece construction – eliminates risk of leakage through joints
- Unobtrusive (buried underground)
- Low maintenance

VOLUME CAPACITY OF STORAGE CHAMBERS

Internal Diameter (x1000mm)	Litres
DN1500	1767
DN1800	2544
DN2100	3464
DN2400	4514
DN2700	5726
DN3000	7069







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AGRICULTURE

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ARCHITECTURAL PRECAST London 020 3905 7640

BUILDING PRODUCTS Lisnaskea 028 6772 1286

BOX CULVERTS Weston Underwood 01335 361269

DRAINAGE Ellistown 01530 240000 Magherafelt 028 7954 9026

DOCK LEVELLERS Weston Underwood 01335 361269

FENCING Cadeby 01455 290780

FLOORING

Weston Underwood 01335 361269 Uddingston 01698 803300

POWER AND INFRASTRUCTURE Cadeby 01455 290780

RAIL Cadeby 01455 290780

SPECIALIST PRECAST Littleport 01353 861416

STRUCTURAL PRECAST Byley 01606 843500

TANKS AND CHAMBERS Wellesbourne 01789 336960

TUNNELS AND SHAFTS Cadeby 01455 290780

WALLING Lydney 01594 847500 Magherafelt 028 7954 9026