

BRIEF TECHNICAL SPECIFICATION

for

MILBURY PRECAST ROCKET WALL PANELS

Design Parameters

Generally designed to BS8110 and BS8002. Individually wet cast in bespoke steel moulds' and subjected to accelerated curing.

Design Life: - Industrial to BS 8110 - 50 years
 Agricultural to BS 5502 20 years

Cantilever Rocket units are designed to act monolithically with an insitu slab or foundations. These precast units will require dowelling or bolting to the slab/foundation to achieve final stability and sliding resistance. This information is available from Milbury Systems Ltd. when sizes and design parameters are known.

Please Note! – a qualified Engineer should always design or check the foundation and ground bearing requirements, prior to installation.

The units are designed (using Rankine's theory) to retain granular material with a density not exceeding 16 kN/m^3 with an angle of repose of 35° . A 10 kN/m^2 surcharge can be allowed for on a level filled wall or, alternatively, the retained material may be sloped at an angle of 30° .

Panel Constituents

Concrete

Nominally an C50/60 mix (60 N/mm^2 at 28 days) using max. 20 mm aggregate, with a minimum OPC content of 400 kg/m^3 and a maximum water/cement ratio of 0.45.

A minimum 40 mm cover to rebar which, embedded in C60 concrete is sufficient for 'Very Severe' exposure to table 3.3 of BS 8110 part 1 (1997).

Reinforcement

Rebar ($f_y - 500 \text{ N/mm}^2$) used in stem and base.

Handling

Units handled in factory and loaded for transportation using forklifts with specialised lifting devices.

Erection lifters are either pre-formed holes, through which specialist lifting devices are passed, and hoisted by telescopic handler, tracked excavator or crane. Specialist lifting devices and forklift attachments are available from see Milbury Systems Ltd.

Panels are installed on to the slab/foundations using a mortar bed to ensure even bearing and preserve alignment.

Surface Finish

Front and rear faces and one side are ex steel mould – ‘Type A’ to Cl. 6.2.7.3 of BS 8110.

Top edge surface (as cast) - trowelled smooth with steel float - type 3U.

Standard Sizes

All panels are 1.25m wide. Nominal overall heights available are 2.40m, 3.00m and 3.60m. Each size has a corresponding corner unit.

Applications

Storage bunkers and walls.

Cast-in Fixings

Generally there are no cast-in items other than holes and lifters.

Casting in of other items - anchor-slot, chases, service holes etc. cannot be achieved with the mould systems available.

We recommend retro-fitted ‘drill and plug’ fixings for any attachments and site cored holes and chases for services, subject to written agreement from Milbury Systems Ltd.

This document is to be used as a guide only. Milbury Systems Ltd will be pleased to advise on specific cases.

S J Pugh
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Rev A – 30th March 2006

