



**GENERAL NOTES.**

- ALL STEEL WELDING TO BE IN ACCORDANCE WITH BS.EN.1011-1 AND BS.EN.1011-2.
- WELDERS AND WELDING PROCEDURES ARE IN ACCORDANCE WITH BS.EN.287-1 AND BS.EN.ISO.15607 RESPECTIVELY.
- MAIN RAILS CAN BE RADIUS TO SUIT ON SITE DOWN TO MINIMUM RADII OF 350 metres. TIGHTER RADII CAN BE SUPPLIED PREFORMED BY SPECIAL ARRANGEMENT.
- DIMENSIONS RELATIVE TO HEIGHT DATUM ASSUME THERE IS NO LONGITUDINAL FALL ON THE PLINTH. ADDITIONAL TOLERANCES TO TAKE ACCOUNT OF THESE FALLS ARE PERMISSIBLE.
- AN EASILY LEGIBLE IDENTIFICATION PLATE SHALL BE APPLIED AND LOCATED NEAR TO THE TOP OF THE FIRST POST AT EACH APPROACH END IN AN EASILY VISIBLE POSITION.

**MATERIAL SPECIFICATION.**

ITEM	SPECIFICATION	ITEM	SPECIFICATION
MAIN RAILS.	ALL STEEL SECTIONS ARE TO BE IN ACCORDANCE WITH BS.EN.10025-1, BS.EN.10025-2, BS.EN.10210-1, BS.EN.10210-2.	BOLTS.	HOLDING DOWN SETPINS TO CONFORM TO BS.3692 AND BE STAINLESS STEEL TO BS.EN.ISO.3506-1 GRADE A4/80. ALL OTHER BOLTS / SETPINS TO BE GALVANISED STEEL TO CONFORM TO BS.3692 AND BS.EN.ISO.4014 GRADE 8.8. *
RAIL JOINTS.	RAIL AND POST SECTIONS TO BE GRADE S355J2H, JOINTS TO BE GRADE S355J0.	NUTS.	ALL NUTS TO BE GALVANISED STEEL TO CONFORM TO BS.3692 AND BS.EN.ISO. 4032 GRADE 8.
POST SECTION.	RAIL AND POST SECTIONS TO BE GRADE S355J2H, JOINTS TO BE GRADE S355J0.	WASHERS.	GALVANISED PLAIN WASHERS TO BE M30 FORM 'G' AND M16 FORM 'G' CONFORMING TO BS.4320. GALVANISED SPRING WASHERS TO BE TYPE 'A' TO BS.4464. STAINLESS STEEL WASHERS TO BE M27 FORM 'A' GRADE A4.
BASEPLATE.	CLEATS AND BOTTOM BRACKET TO BE GRADE S275JO AND BASEPLATE TO BE GRADE S355J2.		
POST CLEAT.			
BOTTOM BRACKET.			

**VGSH 4000 SERIES POST INFORMATION**

ULTIMATE UNFACTORED MOMENT OF RESISTANCE OF POST (kNm) AT UNDERSIDE OF BASEPLATE.	99,755
ULTIMATE SHEAR FORCE RESISTANCE OF POST (kN)	465
SIZE OF HOLDING DOWN BOLTS	M27

**LIST OF ADDITIONAL REFERENCE DRAWING FOR THE VGSH 4000 PARAPETS**

DRAWING NUMBER	TITLE
VGSH 4000 / 03.	RAIL CONNECTION DETAILS. (TOP AND MID RAILS.)
VGSH 4000 / 04.	RAIL CONNECTION DETAILS. (BOTTOM RAIL.)
VGSH 4000 / 05.	PARAPET POST DETAILS.
VGSH 4000 / 06.	TRANZFLEX 170 CONNECTION DETAILS.
VGSH 4000 / 07.	MESHING DETAILS OPTION 1.
VGSH 4000 / 08.	SHEETING DETAILS.
VGSH 4000 / 09.	ANTI-ACCESS PANNELLING.

**APPROVED ANCHORAGE UNITS**

DRAWING NUMBER
FCL 914/2.
SSR-128-VDI-TL
OR OTHER APPROPRIATELY APPROVED CAST-IN OR DRILLED ANCHORAGE SYSTEM.

**VGSH 4000 SERIES PARAPET PERFORMANCE.**

BS.EN.1317-1 and BS.EN.1317-2.	
IMPACT TEST CRITERIA.	TB11 and TB71.
CONTAINMENT LEVEL.	H4a.
WORKING WIDTH.	W4. (1.3m.)
IMPACT SEVERITY LEVEL.	B.
DYNAMIC DEFLECTION.	0.4m.

\* ALTERNATIVE FIXINGS: AS A COST OPTION - IF THE PARAPET FINISH IS HOT DIPPED GALVANISED ONLY ALL FIXINGS CAN BE STAINLESS STEEL TO BS.EN.ISO.3506-1 GRADE A4/80 SUPPLIED WITH APPROPRIATE NYLON ISOLATION WASHERS.

ALL DIMENSIONS IN MM.

VGSH 4000 PARAPET SYSTEMS ARE COVERED BY DESIGN RIGHTS AND PATENT PENDING.

**SECTION SCHEDULE**

NO.	SECTION	DESCRIPTION
1	RAIL SECTION 250x150x5.0 RHS	
2	POST SECTION 180x180x6.3 SHS	
3	BASEPLATE SECTION 490x450x45	
4	RAIL CLEAT - 475x130x15 PLATE	
5	BOTTOM BRACKET TYPE 1. 340x200x 220x6.0mm PLATE	

**MANUFACTURING TOLERANCES.**

Rev	Date	By	Description

TOLERANCES AS SHOWN UNLESS STATED OTHERWISE.

DIMENSIONS.	TOLERANCES.
GREATER THAN 1000mm.	± 2mm
LESS THAN 1000mm.	± 1mm
ANGULAR DIMENSIONS.	± 0°15'

NOTE: ALL ACCUMULATIVE TOLERANCES ARE TO BE CONTAINED WITHIN THE OVERALL TOLERANCE.

**SITE ERECTION TOLERANCES.**

WILL VARY TO SUIT SITE CONDITIONS.

ALL STANDARDS QUOTED ARE DEEMED CURRENT AT THE DATE THE DRAWING IS ISSUED FOR APPROVAL, UNLESS OTHERWISE STATED.

THIS DRAWING TO BE USED ONLY WITH

W/O.No.

DRAWING TO BE RETURNED TO DRAWING OFFICE ON COMPLETION OF WORK

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**MDS BARRIERS**

TITLE: STANDARD ARRANGEMENT DRAWINGS OF VGSH 4000 SERIES STEEL PARAPET SYSTEM.  
 VGSH 4001 and VGSH 4002.

DRAWING NUMBER: VGSH 4000 - 01.