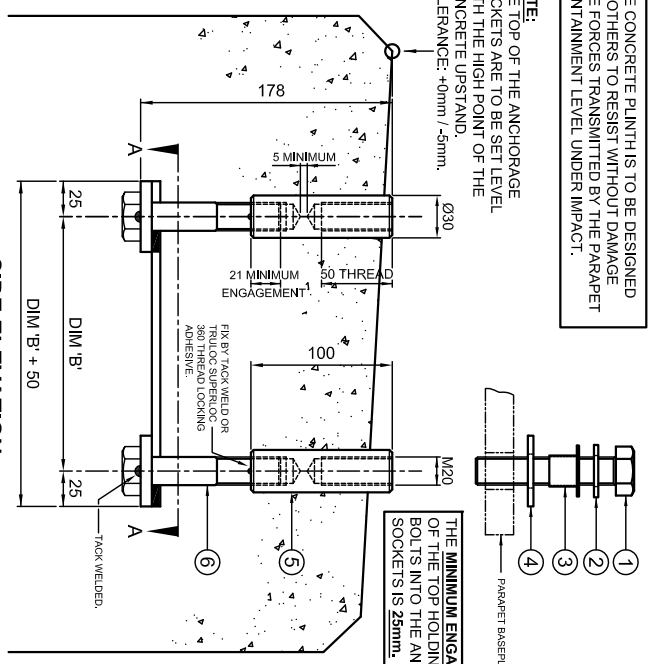


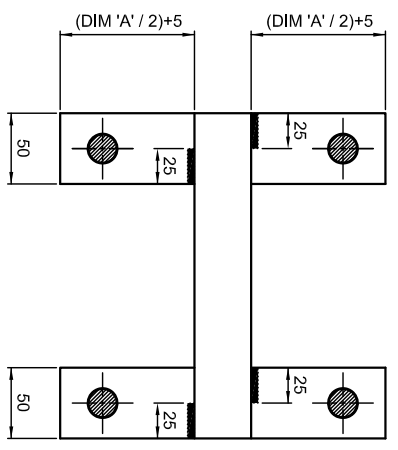
THE CONCRETE PUNTH IS TO BE DESIGNED BY OTHERS TO RESIST WITHOUT DAMAGE THE FORCES TRANSMITTED BY THE PARAPET CONTAINMENT LEVEL UNDER IMPACT.

NOTE:
THE TOP OF THE ANCHORAGE SOCKETS ARE TO BE SET LEVEL WITH THE HIGH POINT OF THE CONCRETE UPSTAND.
TOLERANCE: +0mm / -5mm.



THE MINIMUM ENGAGEMENT OF THE TOP HOLDING DOWN BOLTS INTO THE ANCHORAGE SOCKETS IS 25mm.

SIDE ELEVATION.



SECTION A-A.



M20 CAST-IN ANCHORAGE SPECIFICATION.

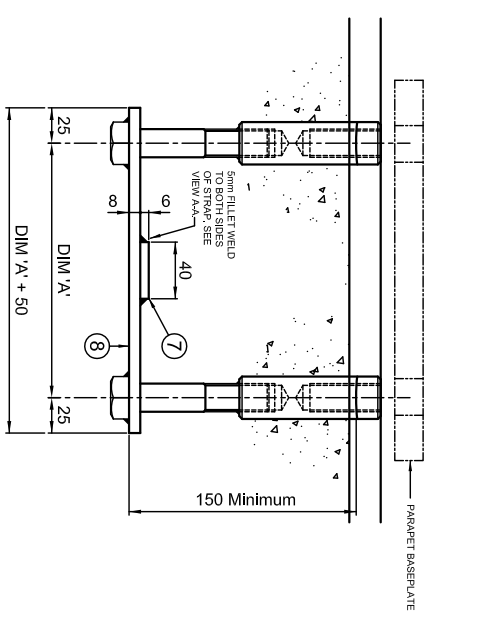
A/.	THIS ANCHORAGE IS DESIGNED AND SPECIFIED IN COMPLIANCE WITH:	Material.
A.1	THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS, VOLUME 1, SERIES 400.	To BS.3692: 2001 and Stainless Steel Class A4/80 to BS.EN.ISO 3506-1: 2009
A.2	BS 6779-1:1998 HIGHWAY PARAPETS FOR BRIDGES AND OTHER STRUCTURES.	To BS.4320: 1968 and Stainless Steel Grade A4 to BS.EN.ISO 3506-1: 2009
B/.	ANCHORAGE IS ONLY FOR USE WITH THE APPROPRIATE VAG VEHICLE RESTRAINT SYSTEMS.	Nylon 66.
C/.	THREAD TOLERANCES:	
	ANCHOR SOCKET INTERNAL - CLASS 6H MEDIUM FIT TO BS.3643-2: 2007.	
	THE HOLDING DOWN SETSCREWS - CLASS 6g MEDIUM FIT TO BS.3643-2: 2007.	
D/.	ALL WELDS TO BE IN ACCORDANCE WITH BS.EN.1011-3:2000.	
E/.	THE ANCHORAGE FINISH IS SELF COLOUR.	
Item No.	Description.	Material.
1.	Parapet Holding Down Fixing: M20 x Suitable length Hexagonal Head Setcrew.	To BS.3692: 2001 and Stainless Steel Class A4/80 to BS.EN.ISO 3506-1: 2009
2.	M20 Flat Washer Form 'A'.	To BS.4320: 1968 and Stainless Steel Grade A4 to BS.EN.ISO 3506-1: 2009
3.	M20 Nylon Top Hat Washer.	Nylon 66.
4.	M20 x 23 lid x 50 old x 4mm Galvanised Washer. (For use with Steel Parapets only.)	To BS.4320: 1968 and Galvanised to BS.EN.ISO 1461.
5.	Anchorage Coupler.	30mm Diameter Bar - SSR550 Stainless Steel grades 1.4401, 1.4436 OR 1.4362 (Duplex) to BS.10088-1:2005.
6.	M20x100 Hexagonal Head Bolt.	High Tensile Steel Class 8.8 to BS.3692:2001.
7.	40kg Anchorage Base connecting strap.	Carbon Steel to BS.EN.10025-1 and 2: 2004 grade S275JR.
8.	50kg Anchorage Base straps.	Carbon Steel to BS.EN.10025-1 and 2: 2004 grade S275JR.
9.	Plywood Template.	FSC Softwood plywood board or similar.

MATERIAL SPECIFICATION.

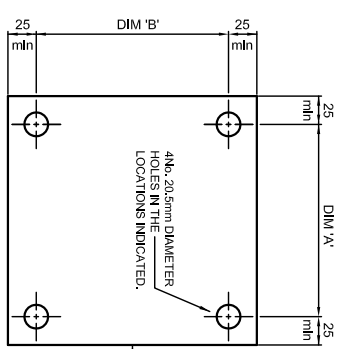
SSR-500 STAINLESS STEEL CONNECTOR.
MINIMUM 0.2% PROOF STRESS = 550 N/mm².
MINIMUM ULTIMATE TENSILE STRENGTH = 650 N/mm².

GRADE 8.8 HIGH TENSILE STEEL BOLTS TO BS.3692:2001
MINIMUM YIELD STRENGTH = 640 N/mm².
MINIMUM TENSILE STRENGTH = 800 N/mm².

CARBON STEEL TO BS.EN.10025-1 & 2:2004 GRADE S275JR.
MINIMUM YIELD STRENGTH = 275 N/mm².
MINIMUM ULTIMATE TENSILE STRENGTH = 410 N/mm².



FRONT ELEVATION.



PLYWOOD TEMPLATE.

- INSTALLATION PROCEDURE.**
1. THE ANCHOR EMBEDMENT DEPTH IN THE CONCRETE MUST BE NOT LESS THAN 150mm.
 2. IF THE PARAPET CROSSFALL AND / OR LONGFALL EXCEEDS A TOTAL OF 20mm BETWEEN SOCKET CENTRES, THE ANCHORAGE MUST BE SET TO ENSURE THAT THE STAINLESS STEEL SOCKET HAS A MINIMUM EMBEDMENT OF 80mm.
 3. ANCHORAGES ARE SUPPLIED WITH A PLYWOOD TEMPLATE AND CARBON STEEL BOLTS FOR FIXING TO FORMWORK. THE PLYWOOD IS TO BE NAILED TO THE SHUTTERING BEFORE POURING. IF IT IS NECESSARY TO REMOVE THE PLYWOOD THIS SHOULD NOT BE DONE UNTIL THE CONCRETE IS SET SUFFICIENTLY TO PREVENT ANY DISTURBANCE OF THE ANCHORAGE.
 4. WHEN ANCHORAGES ARE SENT TO CONCRETE PRECASTERS ANCHORAGE CENTRES ARE SET AND THE TOP SOCKET THREADS FITTED WITH PLASTIC CAPS OR PLUGS.
 5. THE CARBON STEEL BOLTS MUST BE REPLACED IN THE SOCKETS. TO ENSURE THAT THE SOCKET THREADS ARE KEPT CLEAN.
 6. APPLY HIGH GREEP RESISTANT GREASE TO SOCKET THREADS AFTER CLEANING BUT PRIOR TO INSERTING THE STAINLESS STEEL HOLDING DOWN BOLT. (ROCOOL J168 OR SIMILAR).
 7. FOR PARAPET ERECTION SEQUENCE REFER TO PRODUCT SPECIFICATION MANUALS.
 8. THE LENGTH OF TOP BOLT TO BE DETERMINED BY THE PARAPET INSTALLER. TO SUIT SITE CONDITIONS. TO ENSURE A MINIMUM THREAD ENGAGEMENT OF 25mm.
 9. FOR ALUMINIUM PARAPETS THE NYLON TOP HAT WASHERS IS TO BE PLACED BETWEEN THE STAINLESS STEEL WASHER AND THE ALUMINIUM BASEPLATE.
 10. FOR STEEL PARAPETS THE NYLON WASHERS IS TO BE PLACED BETWEEN THE UNDERSIDE OF THE BOLT HEAD AND THE GALVANISED STEEL WASHER.

ALL DIMENSIONS IN MM.

SCALE	DATE	06/04/2011
DRN P.G.H.	CHK C.H.K.	D.V.C.
TITLE		
STANDARD ARRANGEMENT DRAWINGS OF M20 ANCHORAGE UNIT TYPE 3.		

Revised	By	Redrawn with minor amendments.
Issue	Date	11 Apr 11
MANUFACTURING 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.N.O.		
DRAWING TO BE RETURNED TO ISSUING OFFICE ON COMPLETION OF WORK		

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DRAWING NUMBER
VGAS - 3.B.