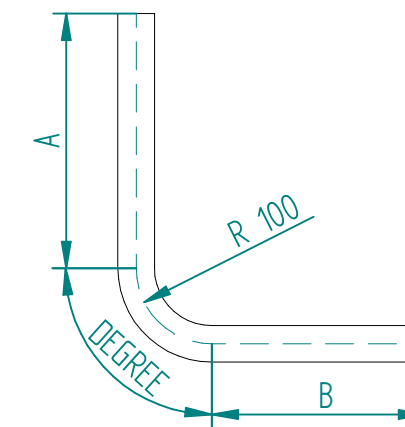
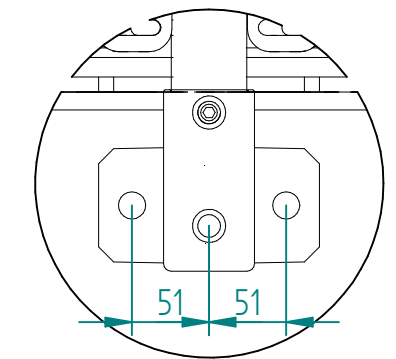


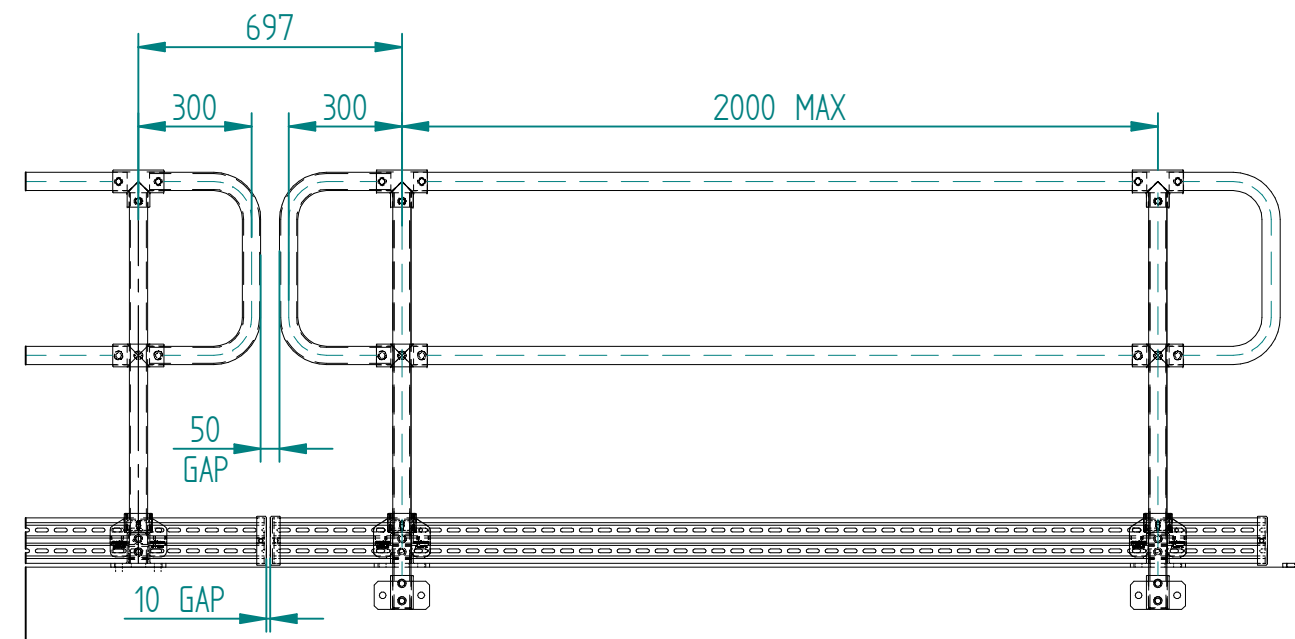
TYPICAL PIPE INSERTION



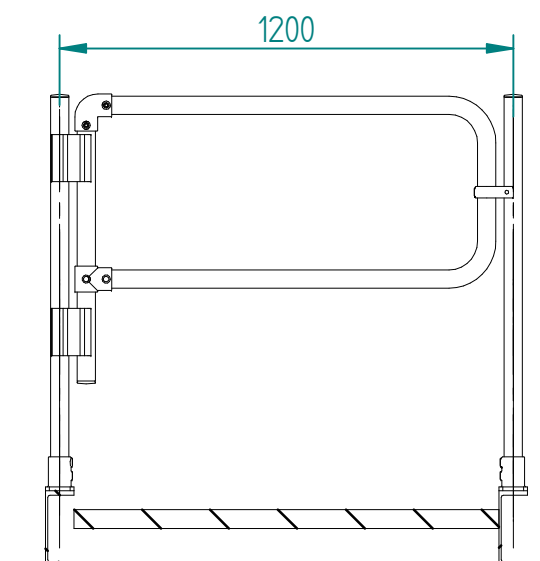
TYPICAL BEND DIMENSIONS



TYPICAL LEVEL HOLE CENTRES FOR F2, T2, C11 & C13



SECTION SHOWING STANDARD 2m SPACING



MODDEX SELF CLOSING GATE SIZES - 600mm, 900mm, 1200mm, 1500mm

ALL DIMENSIONS IN MILLIMETERS  
STANDARDS TOLERANCE ±1mm  
MATERIAL FINISH: MINIMUM OF 1x1 BEVEL ON ALL EDGES  
ALL PIPE TO CONFORM TO: AS 1074  
GALVANIZED TO: AS/NZS 4680:2006  
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No	REVISION	DRAWN	DATE

**moddex**

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BORONIA VIC 3155  
T 1800 663 339  
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SCALE	1:40	A2	TUFFRAIL STANDARD DETAILS <th colspan="4">DRAWING/PART No.</th>	DRAWING/PART No.			
DRAWN	RS	16/07/16	AS 1657 COMPLIANT				
CHECKED	RJ	-	-				
DESIGNED							
APPROVED							
			Sheet		1 OF 3		
			ISSUE	A	B	C	D

**MOUNTING STANCHIONS – RAMP/LEVEL**

- Stanchions are to be mounted 75mm in from edge of substrate to the centre of fixings holes for concrete substrate. Stanchions can be placed anywhere suitable on steel or timber, keeping in mind overhang on the baseplate.
- Face & Channel mount stanchions are to be positioned 75mm from the top of substrate to centre of fixing holes

**MOUNTING STANCHIONS – STAIRS**

- For concrete substrate stair stanchions are to be mounted 75mm in from edge of substrate to the centre of fixings holes. The distance in from the stair nosing to the centre of the stanchion is to be 125mm. The stanchions will not work if this distance is changed.
- Angle mounted stanchions can be mounted anywhere along the stringer when using TR10 & TR20. When using TR30 the stanchion at the top of the stringer must be mounted a minimum of 270mm from the top to allow room for the bends.

**POSITIONING STANCHIONS**

- Moddex products are certified at a maximum of 2m centres. Using 2m centres on level and slight ramps will allow you to use a standard 1940mm pipe length for the mid/bottom rail.

**TOP RAIL DESIGN**

- Moddex recommends typical top rail lengths at between 4 & 6 metres for maximum rigidity & alignment.

**TUFFGARD**

- When using the TR25 configuration a toeboard is required to meet AS1657. To position the Tuffgard, vertically align holes in the Tuffgard to the holes in the fitting on the stanchion.

**BENDS**

- Moddex uses a 100CLR radius for all bends. If Moddex are supplying the handrail all bends must be drawn at 100CLR. If not draw handrail to suit tooling available.

**CUSTOM PARTS**

- If custom parts are required please consult with the design team at Moddex on 1800 663 339 or sales@moddex.com.au

**EXPORTING PARTS LIST**

- Please ensure format of parts list is the same as example below, for easy transition to Moddex's ERP software.

PARTS LISTS TABLE					
ITEM NO.	PART NO.	QTY	CUT LENGTH	DESCRIPTION	FINISH

STANDARD FIXINGS		
Fixing Description	Fixing Code	Fixes to
M12 x 100 Screw Bolt	FX12113.12.100	Concrete
M12 x 120 Wedge Anchor	FX11113.12.120	Concrete
M12 x 160 Chemset Stud Anchor	FX13113.12.160	Concrete
M16 x 50 Structural Assembly	FX22113.16.050	Steel
M16 x 65 Structural Assembly	FX22113.16.065	Steel
M16 x 90 Structural Assembly	FX22113.16.090	Steel/Timber
M16 x 100 Structural Assembly	FX22113.16.100	Steel/Timber
M12 x 100 Coach Screw	FX31113.12.100	Timber

STANCHION CODES		
CODE	APPLICATION	DESCRIPTION
01	CORNER	TUFFRAIL TR20 CORNER STANCHION (TOP MOUNT)
06	END, LEFT	TUFFRAIL TR20 END STANCHION, LEFT (TOP MOUNT)
07	END, RIGHT	TUFFRAIL TR20 END STANCHION, RIGHT (TOP MOUNT)
30	INTERMEDIATE	TUFFRAIL TR20 INTERMEDIATE STANCHION (TOP MOUNT)
32	INTERMEDIATE, 1-11°, LEFT	TUFFRAIL TR20 INTERMEDIATE STANCHION, 5°, LEFT (TOP MOUNT)
33	INTERMEDIATE, 1-11°, RIGHT	TUFFRAIL TR20 INTERMEDIATE STANCHION, 5°, RIGHT (TOP MOUNT)
34	INTERMEDIATE, 12-29°, LEFT	TUFFRAIL TR20 INTERMEDIATE STANCHION, 24°, LEFT (TOP MOUNT)
35	INTERMEDIATE, 12-29°, RIGHT	TUFFRAIL TR20 INTERMEDIATE STANCHION, 24°, RIGHT (TOP MOUNT)
36	INTERMEDIATE, 30-45°, LEFT	TUFFRAIL TR20 INTERMEDIATE STANCHION, 36°, LEFT (TOP MOUNT)
37	INTERMEDIATE, 30-45°, RIGHT	TUFFRAIL TR20 INTERMEDIATE STANCHION, 36°, RIGHT (TOP MOUNT)
50	STEP DOWN	TUFFRAIL TR20 STEP DOWN STANCHION (TOP MOUNT)

No	REVISION	DRAWN	DATE	 <p>44 Kalman Drive BORONIA VIC 3155 T\ 1800 663 339 E\ sales@moddex.com.au</p>	SCALE	1:1	A2	TUFFRAIL STANDARD DETAILS	DRAWING/PART No.
					DRAWN	RS	16/07/16	AS 1657 COMPLIANT	
					CHECKED	RJ	-	-	
					DESIGNED				Sheet 2 OF 3
					APPROVED				ISSUE A B C D