



**TABLE 1 - BASE BLOCK DIMENSIONS**

SIZE	MIN 100KPa ALLOWABLE BEARING PRESSURE		
	W	D	P
DN150	1750	1300	φ450
DN225	2250	1500	φ550
DN300	2500	1500	φ600

**TABLE 2 - ROCKER PIPE DIMENSIONS**

SIZE	MIN	MAX
DN150	300	450
DN225	450	675
DN300	600	900

- NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  - VENTILATION SHAFT DESIGN BASED ON AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS. REFER TO TABLES 3 AND 4 FOR APPLICABLE DESIGN WIND SPEED.
  - FOUNDATION MATERIALS TO BE INSPECTED AND APPROVED BY AN EXPERIENCED GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION OF THE CONCRETE BASE BLOCK. ANY OVER- EXCAVATION OR VOIDS IN THE FOUNDATION MATERIALS TO BE FILLED WITH CLASS N15 MASS CONCRETE TO AS 1379.
  - ALL REINFORCEMENT SHALL BE TO AS/NZS 4671 SHAPE -D, STRENGTH GRADE - 500 MPa, DUCTILITY CLASS - N WITH 70 CLEAR COVER.
  - ALL CONCRETE SHOWN SHALL BE CLASS N32 TO AS1379. SLUMP SHALL BE IN THE RANGE OF 80-120. MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 20.
  - VENT SHAFT SHOULD NOT BE ERECTED UNTIL THE CONCRETE BASE BLOCK HAS REACHED 25 MPa STRENGTH.
  - DESIGN IS NOT SUITABLE FOR APPLICATION IN AGGRESSIVE SOIL CONDITIONS.
  - ALL STAINLESS STEEL SHALL BE GRADE 316L TO ASTM A240M. VENT PIPE SHALL BE TO ASTM A312. FLANGES ARE TO BE SEALED WITH A 3 THICK EPDM GASKET WITH LOCK NUTS AND BOLTS TO ASTM A276. BOLTS SHALL BE TIGHTENED 'SNUG TIGHT'. FLANGES SHALL BE FACTORY FILLET WELDED TO THE VENT PIPE TO AS 1544.6.
  - ALL STAINLESS ..... BEAD BLASTING
  - WHERE PROPRIETARY PRODUCTS ARE SPECIFIED, THE PRODUCT SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
  - FINAL DIMENSION OF ALL ELEMENTS TO BE SHOWN ON WAC DRAWINGS.
  - EXTERNAL SURFACES FOR ALL STAINLESS STEEL ITEMS SHALL BE BEAD BLASTED TO ACHIEVE A NON-DIRECTIONAL LOW REFLECTIVE UNIFORM MATT FINISH WITH A SURFACE ROUGHNESS PROFILE OF RA 3.5 TO 4.5 MICRONS. BLAST MEDIA SHALL BE GLASS. THE BLASTING MEDIA SHALL BE FREE OF CONTAMINATION INCLUDING IRON AND STEEL. NO ADDITIONAL PICKLING OR PASSIVATION IS REQUIRED FOR BLASTED SURFACES.
  - UNLESS DIRECTED OTHERWISE BY SYDNEY WATER, THE VENT SHAFT SHALL NOT BE PAINTED. WHERE REQUIRED, PAINTING SHALL BE IN ACCORDANCE WITH SYSTEM CS-03 OF SYDNEY WATER STANDARD SPECIFICATION PCS-100 PROTECTIVE COATING STANDARD. BEAD BLASTING IS NOT REQUIRED FOR VENT SHAFTS TO BE PAINTED.
  - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DEEMED TO COMPLY DRAWING DTC/2301.

**TABLE 3- VENT PIPE DIMENSIONS**  
DESIGN WIND SPEED = 56 m/s

NOMINAL DIAMETER	MAX HEIGHT	PIPE SCHEDULE	DIMENSIONS	
			OD	WALL THICKNESS
DN150	14,000	S80	168.3	10.97
DN225	18,000	S40	273.1	9.27
DN300	18,000	S40	323.9	9.53

**TABLE 4 - VENT PIPE DIMENSIONS**  
DESIGN WIND SPEED = 89 m/s

NOMINAL DIAMETER	MAX HEIGHT	PIPE SCHEDULE	DIMENSIONS	
			OD	WALL THICKNESS
DN150	9,000	S80	168.3	10.97
DN225	12,000	S40	273.1	9.27
DN300	14,000	S40	323.9	9.53

**Sydney WATER**

STATE OF NEW SOUTH WALES THROUGH SYDNEY WATER CORPORATION. ALL RIGHTS RESERVED

APPROVED

PETER GILLMAN  
MANAGER - E & ES

ENGINEERING & ENVIRONMENTAL SERVICES

LETTER	DETAILS OF ISSUE / AMENDMENT	APP'D	DATE
C	APPLICABLE HEIGHT RANGE AMENDED. DESIGN WIND SPEED ADDED. GENERAL REVISION	RL	16/04/13
B	REFERENCE DRAWING No.s REVISED. GENERAL REVISION	RL	01/03/13
A	ORIGINAL ISSUE	PJG	21/12/12

DEEMED TO COMPLY DRAWINGS

**VENTILATION SHAFT**  
**STAINLESS STEEL 9 - 18m HEIGHT**  
**DN150 - DN300 SHEET 1 OF 2**

**DTC 2300**

ISSUE	DATE
C	16/04/13