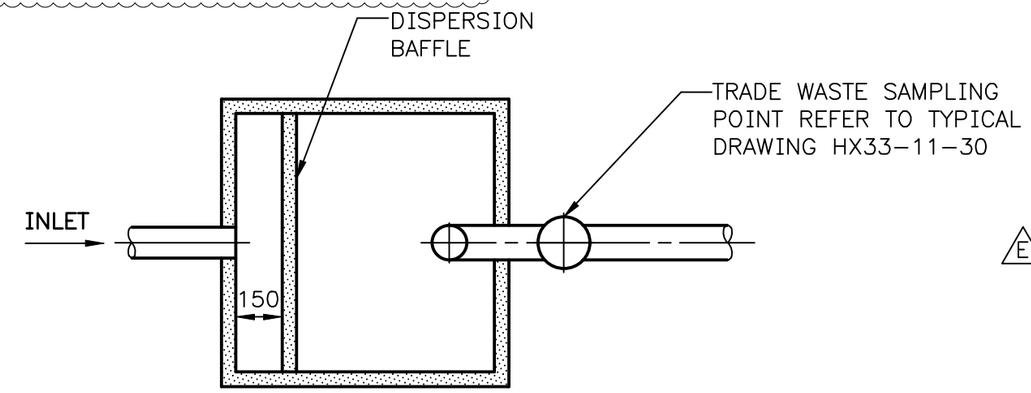
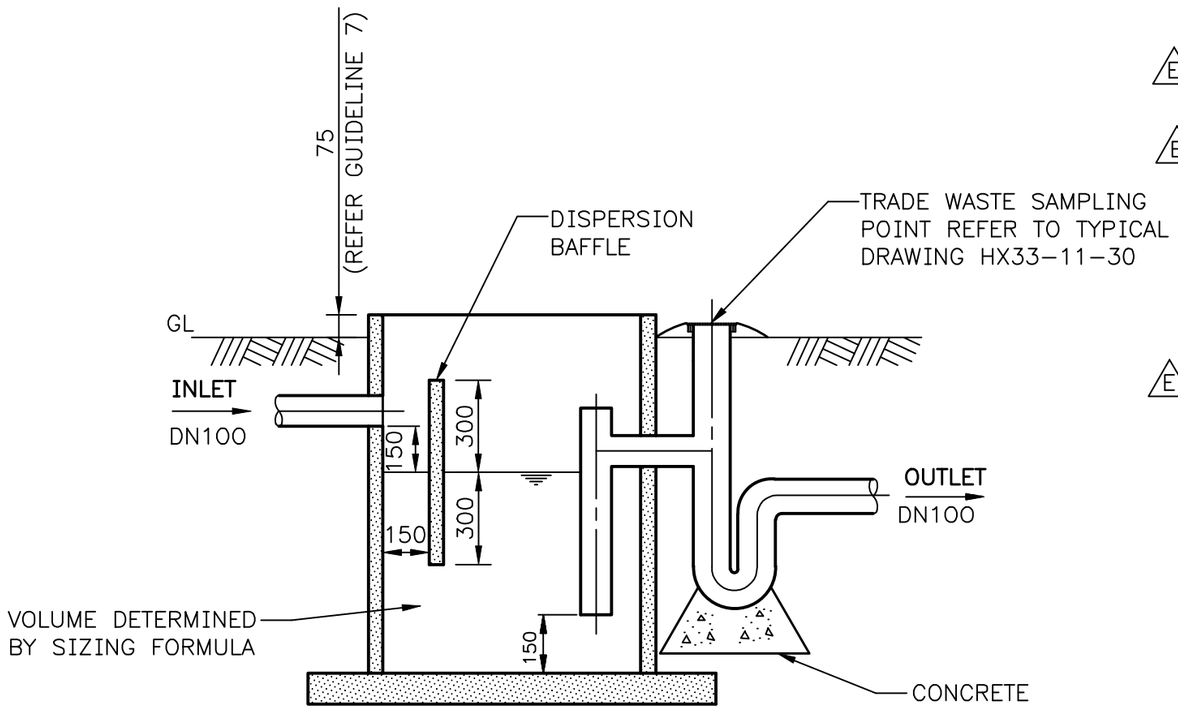
FOR MORE INFORMATION REFER TO OUR WEBSITE
watercorporation.com.au/tradewaste (E)





GUIDELINES

1. CONSTRUCTION OF THE PIT SHALL BE OF REINFORCED CONCRETE OR OTHER APPROVED MATERIAL. CAN BE EITHER RECTANGULAR OR CIRCULAR.
2. THE LID SHALL BE CONSTRUCTED OF GALVANISED OPEN GRATING WITH A RAISED SURROUND OF NOT LESS THAN 75MM ABOVE GROUND LEVEL. IF LOCATED IN SEALED AREA THE PIT MAY BE FINISHED FLUSH WITH THE FINISHED FLOOR LEVEL, BUT MUST GRADE AWAY MINIMUM OF 25MM IF LOCATED OUTSIDE. LID MUST COMPLY TO LATEST VERSION OF AS 3996.
3. ALL FIXINGS AND FIXING BRACKETS FOR BAFFLE MUST ME MADE OF 316 STAINLESS STEEL.
4. THE DISPERSION BAFFLE SHALL BE MADE OF MATERIAL SO THAT IT DOES NOT DISTORT FROM THE HEAT.
5. ALL DIMENSIONS SHOWN ARE IN MILLIMETRES.
6. (E) ALL ASSOCIATED PLUMBING WORK IS TO COMPLY WITH THE PLUMBERS LICENSING AND PLUMBING STANDARDS REGULATIONS 2000 (THE PLUMBING REGULATIONS) (AS AMENDED)
7. APPLICABLE WHERE PIT IS LOCATED IN AREA THAT IS SUBJECT TO PONDING OR ON OPEN UNSEALED GROUND IN A NON–TRAFFICABLE AREA. IF AREA IS SEALED THEN GROUND MUST BE GRADED AWAY FROM FINISHED LID LEVEL OR SAMPLE POINT TO PREVENT INGRESS OF WATER.
8. IF SAMPLE POINT IS LOCATED IN A DRIVEWAY AREA OR SUBJECT TO STORMWATER INTRUSION, THEN IT MUST BE SEALED AND VENTED IN ACCORDANCE WITH TYPICAL DRAWING HX33–10–10.
9. (E) IF INSTALLED IN GARDEN BED, GRASSED AREA OR THE LIKE THEN FINAL FINISH OF THE ENTIRE LENGTH AND WIDTH OF THE COVER BASE MUST BE OF SOLID MATERIAL (PREFERABLY CONCRETE) AND FINISHED TO THE TOP OF THE LID TO ALLOW SAFE OPENING OF LID COVERS.
10. (E) TRADE WASTE SAMPLING POINT DESIGN, LOCATION AND ACCESSIBILITY MUST NOT CONSTITUTE A HEALTH & SAFETY RISK

SIZING FORMULA

$V = V_H + (V_H \times F)$ $\qquad F = \dfrac{T_H - T_A}{T_A - T_C}$

(E) IT'S THE DISCHARGER OR THEIR CONSULTANTS RESPONSIBILITY TO USE THIS OR OTHER EMPIRICAL EQUATIONS TO DETERMINE THE MINIMUM CAPACITY OF THE REQUIRED COOLING PIT TO ENSURE A MAXIMUM DISCHARGE TEMPERATURE OF 38°C IS REACHED (MEASURED AT THE TRADE WASTE SAMPLING POINT). CONSIDERING FLOW CHARACTERISTICS.

V = THE MINIMUM VOLUME OF THE PIT BELOW THE WATER LEVEL.
V_H = ESTIMATED VOLUME OF HOT WATER DISCHARGED AT ONE TIME.
F = THE ESTIMATED FACTOR.
T_H = MAXIMUM TEMPERATURE OF HOT WATER DISCHARGED INTO THE PIT.
T_C = ASSUMED TEMPERATURE OF COLD WATER IN THE PIT, SAY 20°C
T_A = MAXIMUM TEMPERATURE OF WASTE ALLOWED INTO THE SEWER MEASURED AT THE TRADE WASTE SAMPLING POINT 38°C.

EXAMPLE: TO SIZE A COOLING PIT OR BOILER BLOWDOWN PIT TO RECEIVE A DISCHARGE OF 50 LITRES OF HOT WATER @ 65°C, WHERE THE MAXIMUM PERMISSIBLE DISCHARGE TEMPERATURE TO SEWER IS 38. °C
THE TEMPERATURE OF THE COLD WATER IN THE COOLING PIT IS 20°C..

$F = \dfrac{65°C - 38°C}{38°C - 20°C} = 1.5$

(E) V = 50 LITRES + (50 LITRES X 1.5) = 125 LITRES

THEREFORE THE MINIMUM CAPACITY OF THE COOLING PIT OR BOILER BLOW DOWN PIT SHOULD BE 125 LITRES.

SCALE: DIAGRAMMATIC

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
E	05/2024		NOTE 10 ADDED SIZING, FORMULA UPDATED EQUATION ACCOUNTABILITY INFORMATION ADDED	JD	NT	MS
D	02/2020		PLUMBING REGULATION TITLE UPDATED, NOTE 8 & 9 ADDED, TA DESCRIPTION UPDATED	JMS	NT	MS
C	07/2016		WEBSITE DETAILS ADDED, GUIDELINES AND SIZING FORMULA AMENDED	BJ	SJ	MS
B	06/2009		NOTE 6 ADDED	RJ	GC	AM

DES CALC
DES CHD
DRN K MCGREGOR
Q.C. CHD G CLEAVER

RECOMMENDED 01/08/2005
A MANZINGER
SENIOR ASSESSMENTS OFFICER

APPROVED 01/08/2005
J HEWITT
MANAGER, INDUSTRIAL WASTES

WATER CORPORATION

WATER CORPORATION
TYPICAL DRAWINGS FOR TRADE WASTE
COOLING PIT / BOILER BLOWDOWN

ORIGINAL SHEET SIZE A3

FILE 58584708 | PLAN HX33–18–50 | CAD ISSUE E | PROJECT | MF

283
394

CAD MANAGEMENT_NOT READ ONLY\DRAFTING\PROJECTS\TRADE WASTE TYPE DRAWINGS\REVISION\HX33-018-050-01E 13:43 24/06/2024 DRUCEJ2/NB46087