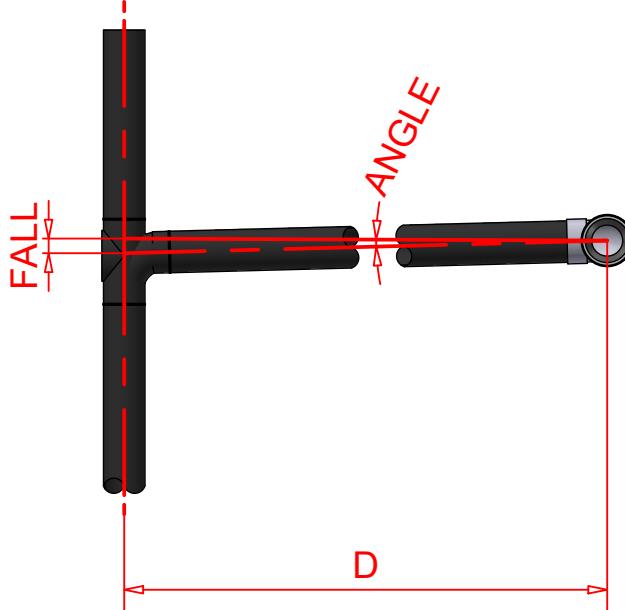


## Terrain Gradients and Fall Rates

## Technical Bulletin

Bulletin 1 - Updated November 2024

2024 P1



APPLIANCE	NOMINAL OUTLET SIZE	HEIGHT FROM FLOOR	MAX DISTANCE FROM STACK
W.C.	100	190	6000
BATH	40	140	3000
BASIN	32	520	1700
BIDET	32	190	1700
SINK	40	545	3000
URINAL	40	405	3000
FOUNTAIN	32	610	1700

Angle	Gradient	Grade as %	mm/Mtr
0.5°	1:115	0.873%	9mm/Mtr
1°	1:57	1.746%	17mm/Mtr
1.25°	1:45	2.182%	22mm/Mtr
2.5°	1:23	4.366%	44mm/Mtr
5°	1:10	8.749%	88mm/Mtr
14°	1:4	24.933%	250mm/Mtr

D (mm)	FALL (mm)			
	1°	1 1/4°	2 1/2°	5°
50mm	1mm	1mm	2mm	4mm
100mm	2mm	2mm	4mm	9mm
200mm	3mm	4mm	9mm	18mm
250mm	4mm	6mm	11mm	22mm
300mm	5mm	7mm	13mm	26mm
400mm	7mm	9mm	18mm	35mm
500mm	9mm	11mm	22mm	44mm
600mm	10mm	13mm	26mm	53mm
700mm	12mm	15mm	31mm	62mm
800mm	14mm	18mm	35mm	70mm
900mm	16mm	20mm	40mm	79mm
1000mm	17mm	22mm	44mm	88mm
1050mm	18mm	23mm	46mm	93mm
1100mm	19mm	24mm	48mm	97mm
1200mm	21mm	26mm	53mm	106mm
1250mm	22mm	28mm	55mm	110mm
1300mm	23mm	29mm	57mm	115mm
1400mm	24mm	31mm	62mm	123mm

D (mm)	FALL (mm)			
	1°	1 1/4°	2 1/2°	5°
1500mm	26mm	33mm	66mm	132mm
1600mm	28mm	35mm	70mm	141mm
1700mm	30mm	37mm	74mm	150mm
1800mm	31mm	40mm	79mm	159mm
1900mm	33mm	42mm	82mm	167mm
2000mm	35mm	44mm	88mm	176mm
2050mm	36mm	45mm	90mm	181mm
2100mm	37mm	46mm	92mm	185mm
2200mm	38mm	48mm	97mm	194mm
2250mm	39mm	50mm	99mm	198mm
2300mm	40mm	51mm	101mm	203mm
2400mm	42mm	53mm	106mm	211mm
2500mm	44mm	55mm	110mm	220mm
2600mm	45mm	57mm	114mm	229mm
2700mm	47mm	59mm	119mm	238mm
2800mm	49mm	62mm	123mm	247mm
2900mm	51mm	64mm	128mm	255mm
3000mm	52mm	66mm	132mm	264mm

NOTE: ALL FALLS ROUNDED UP OR DOWN TO NEAREST WHOLE NUMBER.

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