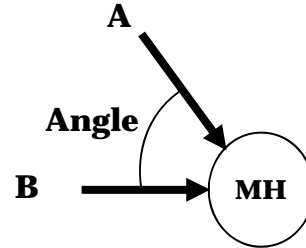


Sanitary Sewer Minimum Core Separation Angles

Minimum Core Separation (in.) 6.00
 4-foot Diameter Manhole Circumference (in.) 150.80
 5-foot Diameter Manhole Circumference (in.) 188.50



Pipe A Diameter (in.)	Pipe B Diameter (in.)	Core A Diameter (in.)	Core B Diameter (in.)	Minimum Angle for 4-foot Diameter Manhole (Deg)	Minimum Angle for 5-foot Diameter Manhole (Deg)
4	4	7.00	7.00	31	25
4	6	7.00	10.15	35	28
4	8	7.00	12.13	37	30
4	10	7.00	16.07	42	33
4	12	7.00	16.07	42	33
4	16	7.00	22.13	49	39
6	6	10.15	10.15	39	31
6	8	10.15	12.13	41	33
6	10	10.15	16.07	46	36
6	12	10.15	16.07	46	36
6	16	10.15	22.13	53	42
8	8	12.13	12.13	43	35
8	10	12.13	16.07	48	38
8	12	12.13	16.07	48	38
8	16	12.13	22.13	55	44
10	10	16.07	16.07	53	42
10	12	16.07	16.07	53	42
10	16	16.07	22.13	60	48
12	12	16.07	16.07	53	42
12	16	16.07	22.13	60	48
16	16	22.13	22.13	67	54