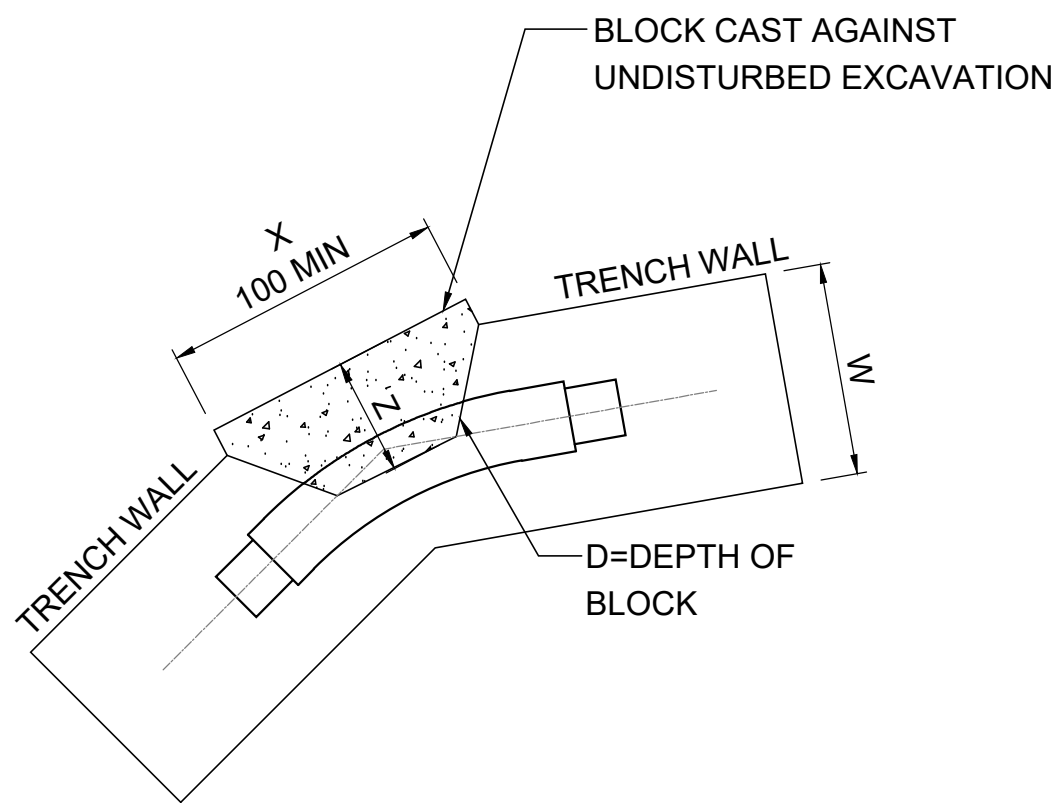
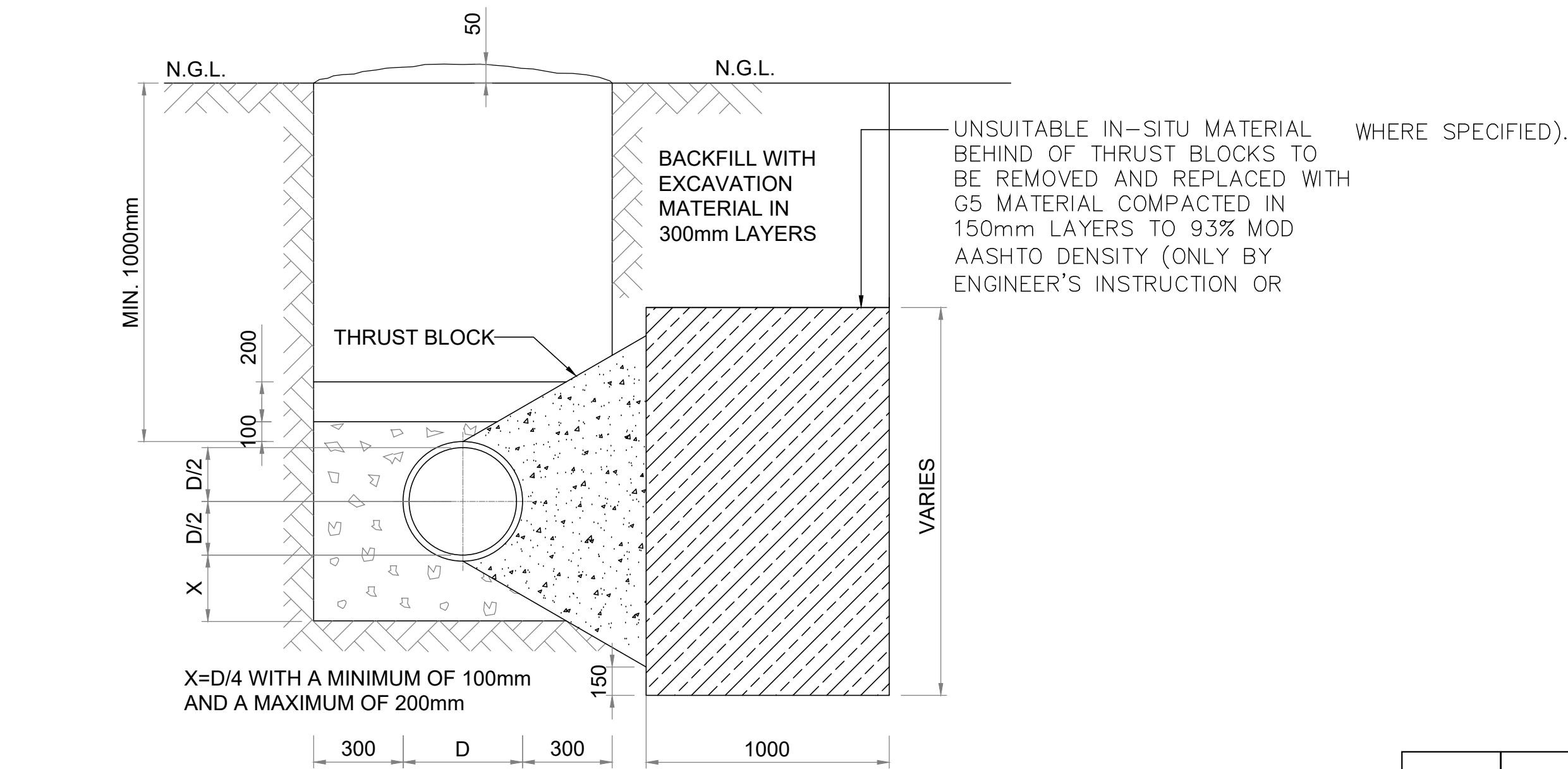
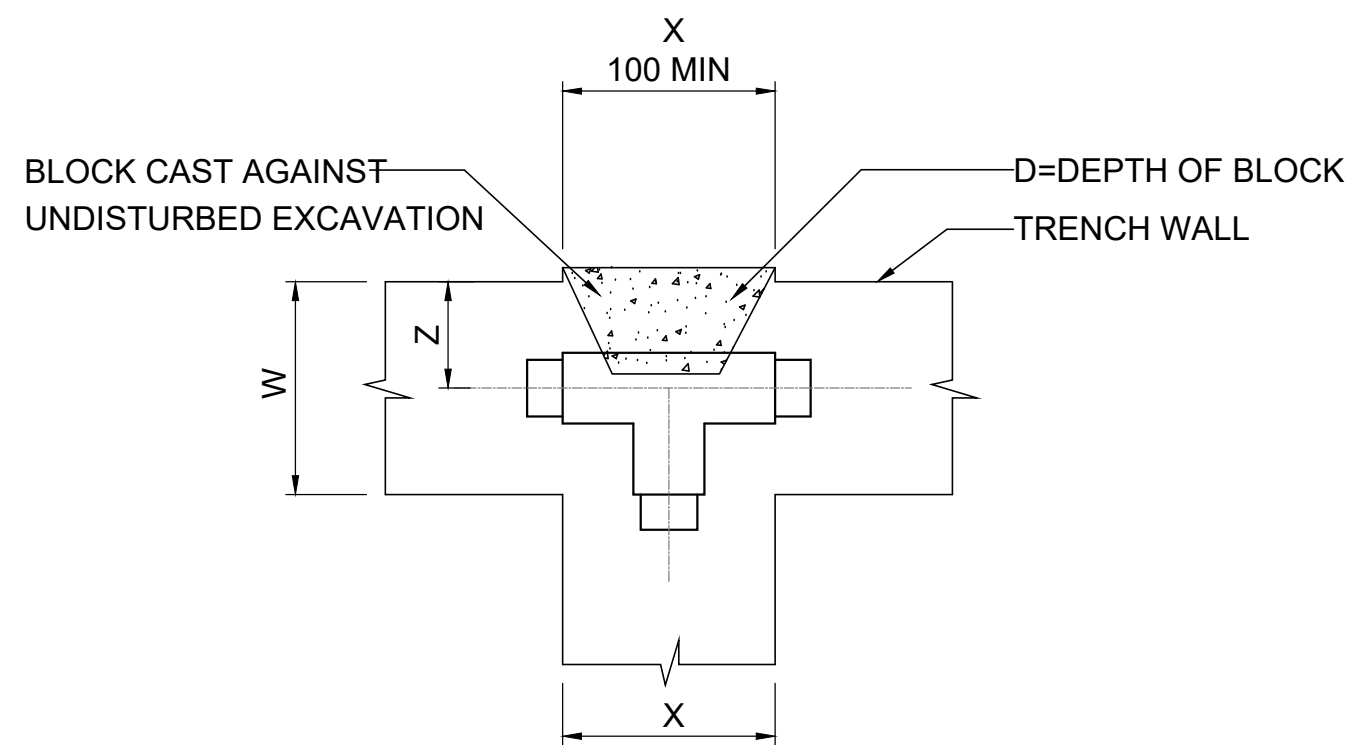
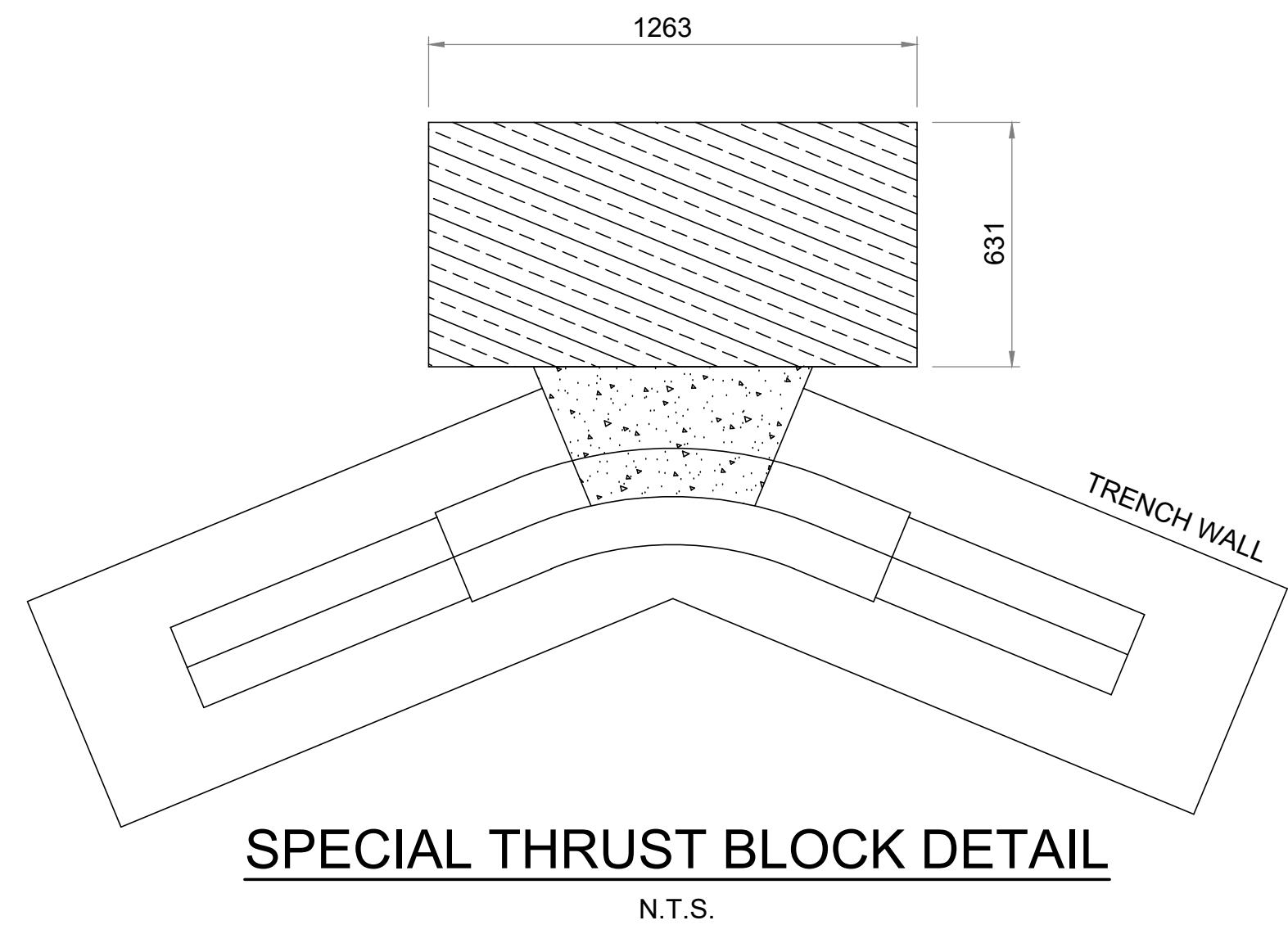




THRUST BLOCK FOR 45° BEND

DIA Ø (mm)	MAXIMUM TESTING PRESSURE											
	900 kPa		1350 kPa		1800 kPa		2400 kPa		3000 kPa			
	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)
50	130	0.02	130	0.02	170	0.03	190	0.04	220	0.05		
75	180	0.03	680	0.46	250	0.06	290	0.08	320	0.10		
100	240	0.06	290	0.08	330	0.11	380	0.14	430	0.18		
150	370	0.13	430	0.18	500	0.24	580	0.33	640	0.41		
200	470	0.22	580	0.33	660	0.43	770	0.58	850	0.72		
250	590	0.34	720	0.51	830	0.68	960	0.90	1070	1.13		
315	740	0.54	900	0.81	1040	1.08	1200	1.43	1340	1.79		
355	830	0.68	1020	1.02	1170	1.37	1350	1.82	1510	2.27		
400	940	0.87	1150	1.30	1320	1.73	1520	2.31	1700	2.89		

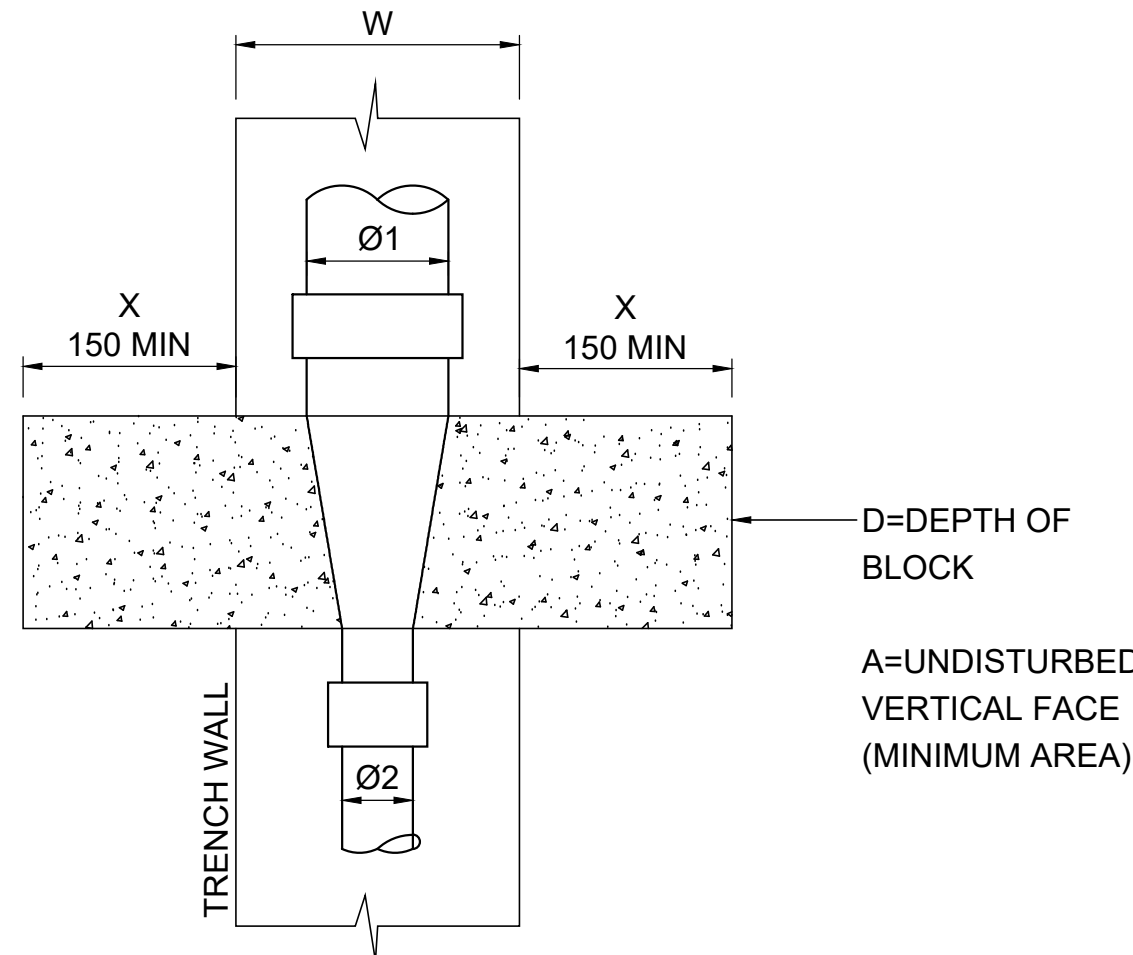
- THIS TABLE IS VALID FOR 100 kPa EARTH BEARING CAPACITY.
- THE REQUIRED AREA CAN BE REDUCED FOR HIGHER EARTH BEARING CAPACITIES. (TO BE APPROVED BY ENGINEER)
- $Z = B = X/2$
- DEPTH OF BLOCK = X
- HALF THE DEPTH OF THE BLOCK SHALL B BELOW THE PIPE AXIS
- KEEP FLANGES AND COUPLINGS CLEAR FROM CONCRETE.



THRUST BLOCK FOR TEE

DIA Ø (mm)	MAXIMUM TESTING PRESSURE											
	900 kPa		1350 kPa		1800 kPa		2400 kPa		3000 kPa			
	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)
50	140	0.02	520	0.27	190	0.04	220	0.05	250	0.06		
75	200	0.04	250	0.06	290	0.08	330	0.11	370	0.13		
100	270	0.07	330	0.11	380	0.14	440	0.19	490	0.24		
150	400	0.16	490	0.24	570	0.32	660	0.42	730	0.53		
200	540	0.28	660	0.42	760	0.57	870	0.75	980	0.94		
250	670	0.44	820	0.66	950	0.88	1090	1.18	1220	1.47		
315	840	0.70	1030	1.05	1190	1.40	1370	1.87	1530	2.34		
355	950	0.89	1160	1.34	1340	1.78	1550	2.38	1730	2.97		
400	1070	1.13	1310	1.70	1510	2.26	1740	3.02	1950	3.77		

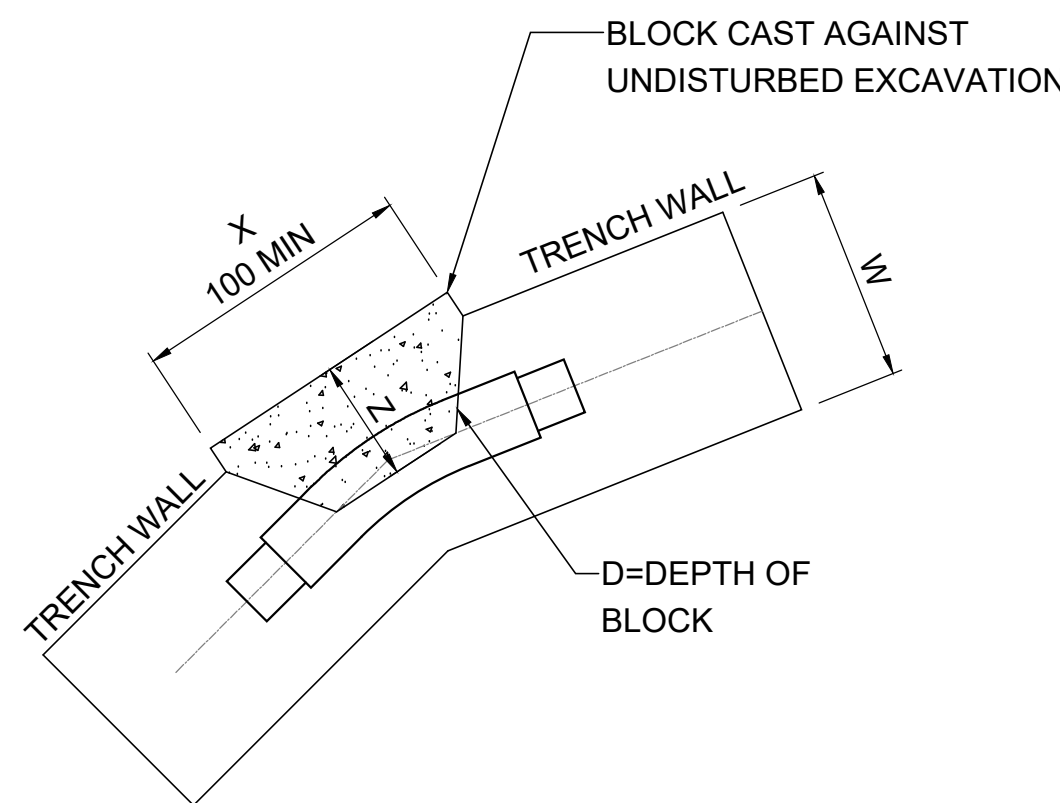
- THIS TABLE IS VALID FOR 100 kPa EARTH BEARING CAPACITY.
- THE REQUIRED AREA CAN BE REDUCED FOR HIGHER EARTH BEARING CAPACITIES. (TO BE APPROVED BY ENGINEER)
- $Z = B = X/2$
- DEPTH OF BLOCK = X
- HALF THE DEPTH OF THE BLOCK SHALL B BELOW THE PIPE AXIS
- KEEP FLANGES AND COUPLINGS CLEAR FROM CONCRETE.



THRUST BLOCK FOR REDUCER

INLET DIA Ø (mm)	OUTLET DIA Ø (mm)	MAXIMUM TESTING PRESSURE											
		900 kPa		1350 kPa		1800 kPa		2400 kPa		3000 kPa			
		X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)
75	50	150	0.02	190	0.03	210	0.04	250	0.06	280	0.07		
100	75	180	0.03	220	0.05	250	0.06	290	0.08	330	0.10		
150	100	300	0.09	370	0.13	420	0.18	490	0.24	550	0.29		
200	150	360	0.12	440	0.19	500	0.25	580	0.33	650	0.41		
250	200	400	0.16	490	0.24	570	0.32	660	0.42	730	0.53		
315	250	510	0.26	630	0.39	720	0.52	840	0.69	930	0.86		
355	315	440	0.19	540	0.28	620	0.38	720	0.51	800	0.63		
400	355	490	0.24	600	0.36	700	0.48	800	0.64	900	0.80		

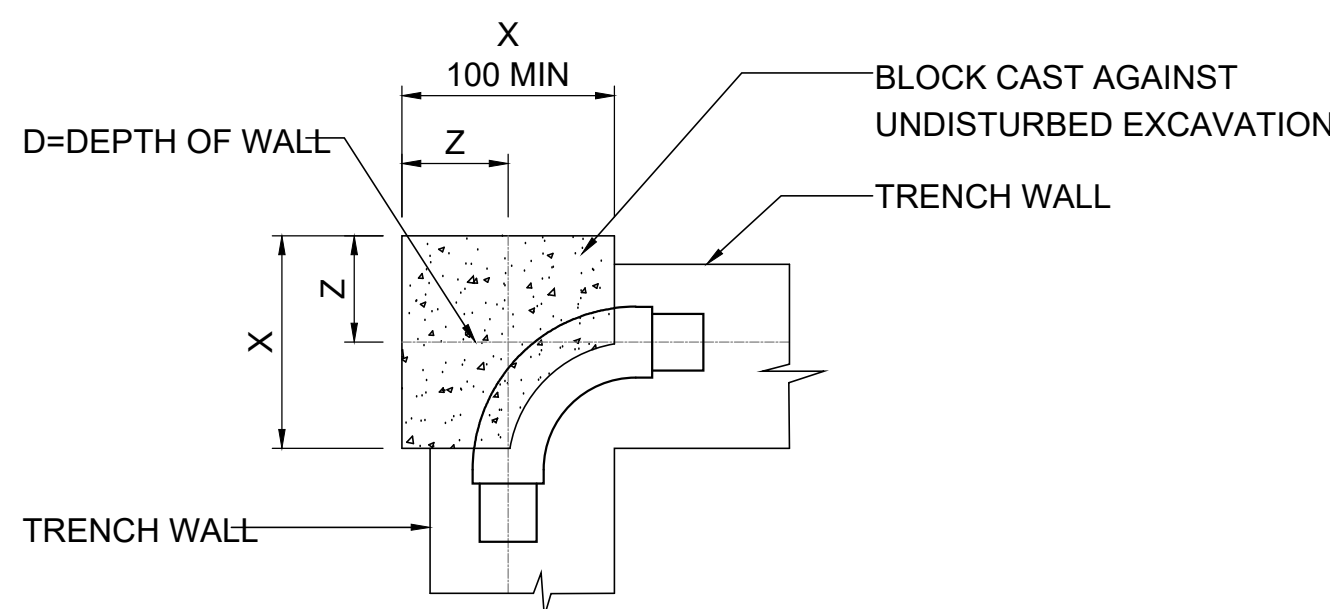
- THIS TABLE IS VALID FOR 100 kPa EARTH BEARING CAPACITY.
- THE REQUIRED AREA CAN BE REDUCED FOR HIGHER EARTH BEARING CAPACITIES. (TO BE APPROVED BY ENGINEER)
- $Z = B = X/2$
- DEPTH OF BLOCK = X
- HALF THE DEPTH OF THE BLOCK SHALL B BELOW THE PIPE AXIS
- KEEP FLANGES AND COUPLINGS CLEAR FROM CONCRETE.



THRUST BLOCK FOR 22.5° & 11.25° BEND

DIA Ø (mm)	MAXIMUM TESTING PRESSURE											
	900 kPa		1350 kPa		1800 kPa		2400 kPa		3000 kPa			
	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)
50	90	0.01	100	0.01	120	0.01	140	0.02	160	0.02		
75	130	0.02	160	0.02	180	0.03	210	0.04	230	0.05		
100	170	0.03	210	0.04	240	0.06	280	0.07	310	0.09		
150	250	0.06	310	0.09	360	0.12	410	0.17	460	0.21		
200	340	0.11	410	0.17	480	0.22	550	0.29	610	0.37		
250	420	0.17	510	0.26	590	0.35	680	0.46	760	0.58		
315	530	0.27	650	0.41	750	0.55	860	0.73	960	0.91		
355	590	0.35	730	0.52	840	0.70	970	0.93	1080	1.16		
400	670	0.44	820	0.66	950	0.88	1090	1.18	1220	1.47		

- THIS TABLE IS VALID FOR 100 kPa EARTH BEARING CAPACITY.
- THE REQUIRED AREA CAN BE REDUCED FOR HIGHER EARTH BEARING CAPACITIES. (TO BE APPROVED BY ENGINEER)
- $Z = B = X/2$
- DEPTH OF BLOCK = X
- HALF THE DEPTH OF THE BLOCK SHALL B BELOW THE PIPE AXIS
- KEEP FLANGES AND COUPLINGS CLEAR FROM CONCRETE.



THRUST BLOCK FOR 90° BEND

DIA Ø (mm)	MAXIMUM TESTING PRESSURE											
	900 kPa		1350 kPa		1800 kPa		2400 kPa		3000 kPa			
	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)	X (mm)	A (m²)
50	160	0.03	200	0.04	230	0.05	260	0.07	290	0.08		
75	240	0.06	290	0.08	340	0.11	390	0.15	440	0.19		
100	320	0.10	390	0.15	450	0.20	520	0.27	580	0.33		
150	480	0.23	590	0.34	680	0.45	780	0.60	870	0.75		
200	640	0.40	780	0.60	900	0.80	1040	1.07	1160	1.33		
250	800	0.63	970	0.94	1120	1.25	1300	1.67	1450	2.08		
315	1000	0.99	1230	1.49	1410	1.99	1630	2.65	1820	3.31		
355	1130	1.26	1380	1.89	1590	2.52	1840	3.36	2060	4.20		
400	1270	1.60	1560	2.40	1790	3.20	2070	4.27	2310	5.34		

- THIS TABLE IS VALID FOR 100 kPa EARTH BEARING CAPACITY.
- THE REQUIRED AREA CAN BE REDUCED FOR HIGHER EARTH BEARING CAPACITIES. (TO BE APPROVED BY ENGINEER)
- $Z = B = X/2$
- DEPTH OF BLOCK = X
- HALF THE DEPTH OF THE BLOCK SHALL B BELOW THE PIPE AXIS
- KEEP FLANGES AND COUPLINGS CLEAR FROM CONCRETE.

DRAWING REVISIONS				
REV	DATE	DRAWN	CHECKED	DESCRIPTION

RESPONSIBLE PERSONNEL		SIGNATURE	DATE
DESIGNED	S NGCOBO		
DRAWN	L JIYANA		
CHECKED	S MKHIZE		
APPROVED	AM NDLOVU		
SCALE	AS SHOWN		

APPROVED : CLIENT	
SIGNATURE	DATE
PROJECT NUMBER	DRAWING NUMBER
VU-WTR-21-006	304
STAGE	SHEET SIZE SHEET No. REVISION
TENDER	A0 1 OF 1 0
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