

2.2.3 Load tables - walls designed for compression by refined calculation:

The tables in this section are for walls designed using refined calculation where the design is based on the height or the length of the wall. Refer to Section 2.2 to determine if wall height or wall length governs the design of the wall.

20MPa Blocks, 20MPa Grout

Table 1 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 0.75$, height governs
Table 2 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 0.85$, height governs
Table 3 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 1.00$, height governs
Table 4 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 1.50$, height governs
Table 5 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 2.50$, height governs
Table 6 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 0.75$, $a_h = 1.0$, length governs
Table 7 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 0.85$, $a_h = 1.0$, length governs
Table 8 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 1.00$, $a_h = 1.0$, length governs
Table 9 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 1.50$, $a_h = 1.0$, length governs
Table 10 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 2.50$, $a_h = 1.0$, length governs
Table 11 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 0.75$, $a_h = 2.5$, length governs
Table 12 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 0.85$, $a_h = 2.5$, length governs
Table 13 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 1.00$, $a_h = 2.5$, length governs
Table 14 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 1.50$, $a_h = 2.5$, length governs
Table 15 - 2.2.3:	20MPa blocks, 20MPa grout, $a_v = 2.50$, $a_h = 2.5$, length governs

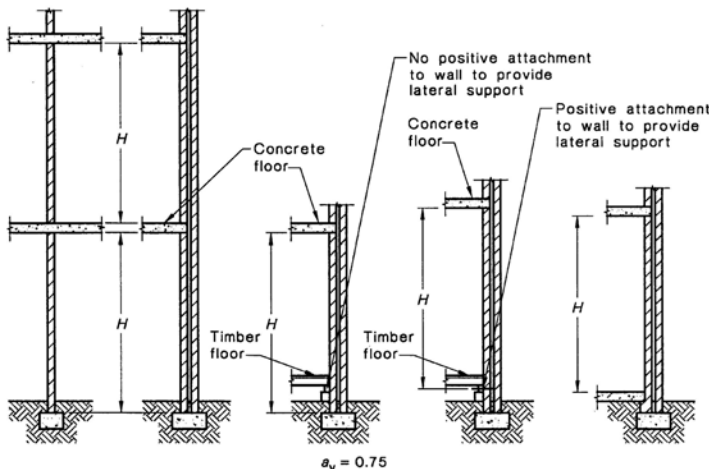
Table 1 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa **Wall span:** VERTICAL (reinforced vertically)

Grout: 20MPa $a_v = 0.75$

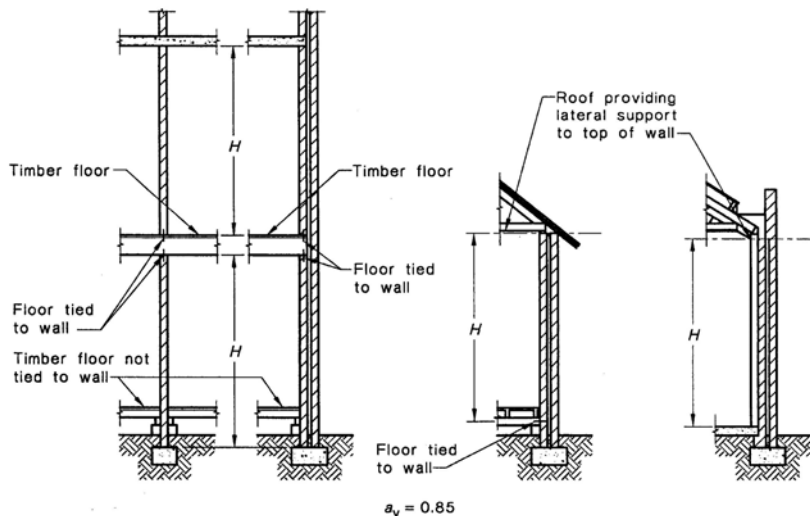
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.2 mm	20mm			40mm			60mm			80mm			≥ 82 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	7.5	486	359	405	451	234	325	415	110	244	379	0	164	344	0
2400	9	463	338	384	429	218	307	395	98	230	362	0	153	328	0
2800	10.5	440	317	363	408	202	289	376	86	215	344	0	141	311	0
3200	12	417	297	342	387	186	271	356	75	200	326	0	129	295	0
3600	13.5	394	276	321	366	169	253	337	63	185	308	0	118	279	0
4000	15	372	255	300	344	153	235	317	51	171	290	0	106	263	0
4400	16.5	349	234	279	323	137	217	298	40	156	272	0	95	247	0
4800	18	326	213	258	302	121	199	278	28	141	254	0	83	230	0
5200	19.5	303	193	237	281	105	182	259	16	126	236	0	71	214	0
5600	21	280	172	216	259	88	164	239	5	112	218	0	60	198	0
6000	22.5	257	151	195	238	72	146	219	0	97	201	0	48	182	0
6400	24	234	130	174	217	56	128	200	0	82	183	0	36	166	0
6800	25.5	211	109	153	196	40	110	180	0	67	165	0	25	149	0
7200	27	188	89	132	175	23	92	161	0	53	147	0	13	133	0
7600	28.5	165	68	111	153	7	74	141	0	38	129	0	2	117	0
8000	30	143	47	90	132	0	56	122	0	23	111	0	0	101	0
8400	31.5	120	26	69	111	0	38	102	0	8	93	0	0	85	0
8800	33	97	5	48	90	0	21	83	0	0	75	0	0	68	0
9200	34.5	74	0	27	68	0	3	63	0	0	58	0	0	52	0
9600	36	51	0	5	47	0	0	43	0	0	40	0	0	36	0



**Lateral support top and bottom
Partial rotational restraint top and bottom
Fully braced construction**

Table 2 - 2.2.3:
200 MORTARLESS WALL (chamfered blocks)
Block: 20MPa Wall span: VERTICAL (reinforced vertically)
Grout: 20MPa $a_v = 0.85$

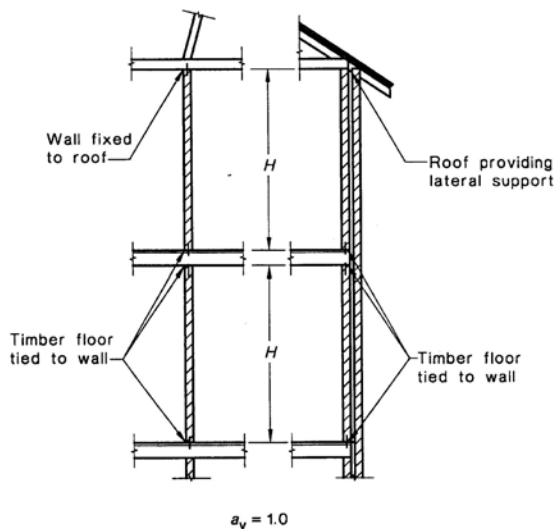
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.2 mm	20mm			40mm			60mm			80mm			≥ 82 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	8.5	471	345	391	436	224	313	402	102	235	367	0	157	333	0
2400	10.2	445	322	367	412	205	292	380	89	218	347	0	143	315	0
2800	11.9	419	298	343	388	187	272	358	75	201	327	0	130	296	0
3200	13.6	393	274	319	364	168	252	335	62	184	307	0	117	278	0
3600	15.3	367	251	296	340	150	232	313	49	168	286	0	104	260	0
4000	17	341	227	272	316	132	211	291	36	151	266	0	91	241	0
4400	18.7	315	204	248	292	113	191	269	23	134	246	0	77	223	0
4800	20.4	289	180	224	268	95	171	247	9	118	226	0	64	204	0
5200	22.1	263	157	200	244	76	151	225	0	101	205	0	51	186	0
5600	23.8	237	133	176	220	58	130	202	0	84	185	0	38	168	0
6000	25.5	211	109	153	196	40	110	180	0	67	165	0	25	149	0
6400	27.2	185	86	129	172	21	90	158	0	51	145	0	12	131	0
6800	28.9	159	62	105	148	3	69	136	0	34	124	0	0	113	0
7200	30.6	133	39	81	124	0	49	114	0	17	104	0	0	94	0
7600	32.3	107	15	57	100	0	29	92	0	0	84	0	0	76	0
8000	34	81	0	34	75	0	9	70	0	0	64	0	0	58	0
8400	35.7	55	0	10	51	0	0	47	0	0	43	0	0	39	0



**Lateral support top and bottom
Partial rotational support one end
Fully braced construction**

Table 3 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)															
Block: 20MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 20MPa		$a_v = 1.00$													
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.2 mm	20mm			40mm			60mm			80mm			≥ 82 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	10	448	324	317	415	207	295	382	90	220	350	0	145	317	0
2400	12	417	297	293	387	186	271	356	75	200	326	0	129	295	0
2800	14	387	269	269	359	164	247	330	59	181	302	0	114	274	0
3200	16	356	241	245	330	142	223	304	44	161	278	0	98	252	0
3600	18	326	213	221	302	121	199	278	28	141	254	0	83	230	0
4000	20	295	186	197	274	99	176	252	13	121	230	0	67	209	0
4400	22	265	158	173	245	78	152	226	0	102	207	0	52	187	0
4800	24	234	130	149	217	56	128	200	0	82	183	0	36	166	0
5200	26	204	102	125	189	34	104	174	0	62	159	0	21	144	0
5600	28	173	75	101	160	13	80	148	0	43	135	0	5	122	0
6000	30	143	47	77	132	0	56	122	0	23	111	0	0	101	0
6400	32	112	19	53	104	0	32	96	0	3	87	0	0	79	0
6800	34	81	0	29	75	0	9	70	0	0	64	0	0	58	0
7200	36	51	0	5	47	0	0	43	0	0	40	0	0	36	0



**Lateral support top and bottom
Fully braced construction**

Table 4 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 20MPa

$a_v = 1.50$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.2 mm	20mm			40mm			60mm			80mm			≥ 82 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	15	372	255	257	344	153	235	317	51	171	290	0	106	263	0
2400	18	326	213	221	302	121	199	278	28	141	254	0	83	230	0
2800	21	280	172	185	259	88	164	239	5	112	218	0	60	198	0
3200	24	234	130	149	217	56	128	200	0	82	183	0	36	166	0
3600	27	188	89	113	175	23	92	161	0	53	147	0	13	133	0
4000	30	143	47	77	132	0	56	122	0	23	111	0	0	101	0
4400	33	97	5	41	90	0	21	83	0	0	75	0	0	68	0
4800	36	51	0	5	47	0	0	43	0	0	40	0	0	36	0

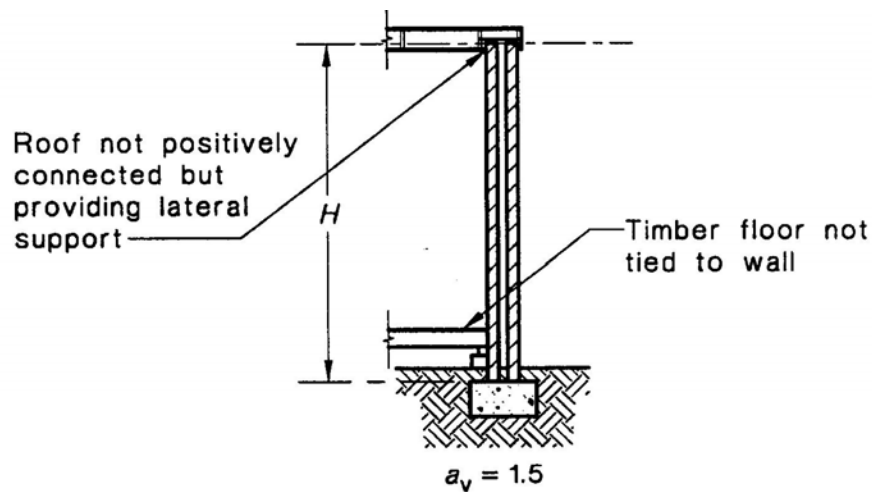
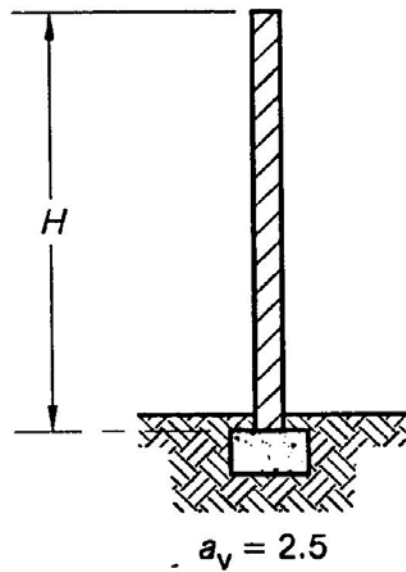


Table 5 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)															
Block: 20MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 20MPa		$a_v = 2.50$													
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.2 mm	20mm			40mm			60mm			80mm			≥ 82 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	25	219	116	137	203	45	116	187	0	72	171	0	29	155	0
2400	30	143	47	77	132	0	56	122	0	23	111	0	0	101	0
2800	35	66	0	17	61	0	0	56	0	0	52	0	0	47	0



Free standing wall
No lateral support to top edge

Table 6 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)							
Block: 20MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 20MPa		$a_v = 0.75$		$a_h = 1.0$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
2000	6.1	508	379	250	121	0	0
2400	7.3	490	362	237	111	0	0
2800	8.5	471	345	224	102	0	0
3200	9.7	453	329	211	92	0	0
3600	10.9	434	312	197	83	0	0
4000	12.1	415	295	184	74	0	0
4400	13.3	397	278	171	64	0	0
4800	14.5	378	261	158	55	0	0
5200	15.8	360	244	145	45	0	0
5600	17.0	341	228	132	36	0	0
6000	18.2	323	211	119	27	0	0
6400	19.4	304	194	106	17	0	0
6800	20.6	286	177	93	8	0	0
7200	21.8	267	160	79	0	0	0
7600	23.0	249	144	66	0	0	0
8000	24.2	230	127	53	0	0	0
8400	25.5	212	110	40	0	0	0
8800	26.7	193	93	27	0	0	0
9200	27.9	175	76	14	0	0	0
9600	29.1	156	60	1	0	0	0
10000	30.3	138	43	0	0	0	0
10400	31.5	119	26	0	0	0	0
10800	32.7	101	9	0	0	0	0
11200	33.9	82	0	0	0	0	0
11600	35.2	64	0	0	0	0	0
12000	36.4	45	0	0	0	0	0

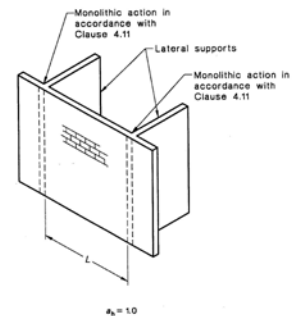
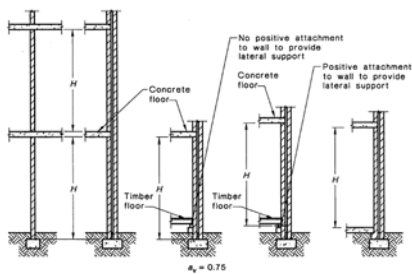


Table 7 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 20MPa

$a_v = 0.85$

$a_h = 1.0$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
2000	6.5	502	374	246	118	0	0
2400	7.7	482	356	232	108	0	0
2800	9.0	463	338	218	98	0	0
3200	10.3	443	320	204	88	0	0
3600	11.6	423	302	190	78	0	0
4000	12.9	404	284	176	68	0	0
4400	14.2	384	266	162	58	0	0
4800	15.5	364	248	148	48	0	0
5200	16.8	344	230	134	38	0	0
5600	18.1	325	212	120	28	0	0
6000	19.4	305	195	106	18	0	0
6400	20.7	285	177	92	7	0	0
6800	21.9	266	159	78	0	0	0
7200	23.2	246	141	64	0	0	0
7600	24.5	226	123	50	0	0	0
8000	25.8	206	105	36	0	0	0
8400	27.1	187	87	22	0	0	0
8800	28.4	167	69	8	0	0	0
9200	29.7	147	51	0	0	0	0
9600	31.0	128	33	0	0	0	0
10000	32.3	108	16	0	0	0	0
10400	33.6	88	0	0	0	0	0
10800	34.8	68	0	0	0	0	0
11200	36.1	49	0	0	0	0	0

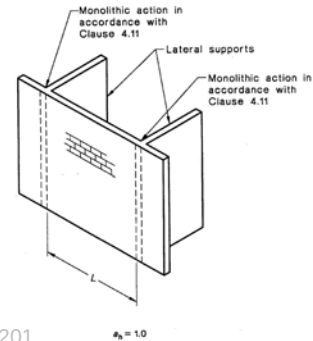
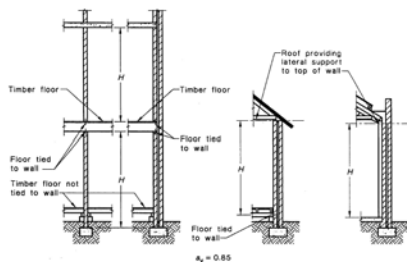


Table 9 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 20MPa

$a_v = 1.50$

$a_h = 1.0$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
1200	5.1	509	392	260	128	0	0
1600	6.9	496	368	241	115	0	0
2000	8.6	470	344	223	101	0	0
2400	10.3	444	320	204	88	0	0
2800	12.0	417	297	186	75	0	0
3200	13.7	391	273	167	61	0	0
3600	15.4	365	249	149	48	0	0
4000	17.1	339	225	130	35	0	0
4400	18.9	313	201	111	21	0	0
4800	20.6	286	178	93	8	0	0
5200	22.3	260	154	74	0	0	0
5600	24.0	234	130	56	0	0	0
6000	25.7	208	106	37	0	0	0
6400	27.4	182	83	19	0	0	0
6800	29.1	156	59	0	0	0	0
7200	30.9	129	35	0	0	0	0
7600	32.6	103	11	0	0	0	0
8000	34.3	77	0	0	0	0	0
8400	36.0	51	0	0	0	0	0

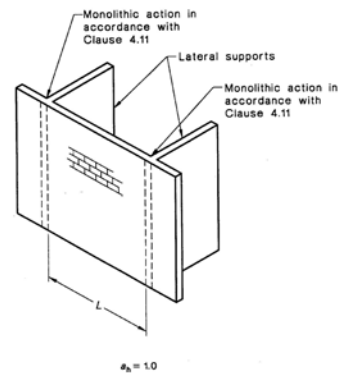
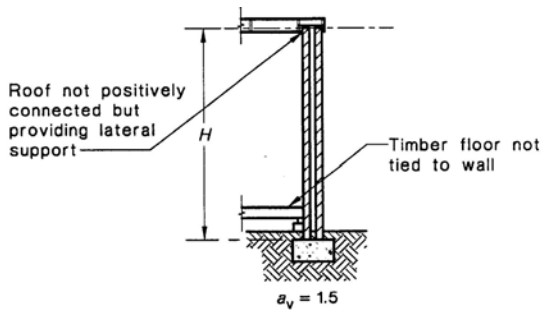


Table 10 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 20MPa

$a_v = 2.50$

$a_h = 1.0$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
1200	6.6	499	371	244	116	0	0
1600	8.9	465	340	220	99	0	0
2000	11.1	432	310	196	82	0	0
2400	13.3	398	279	172	65	0	0
2800	15.5	364	248	148	47	0	0
3200	17.7	330	217	124	30	0	0
3600	19.9	296	187	100	13	0	0
4000	22.1	263	156	76	0	0	0
4400	24.3	229	125	52	0	0	0
4800	26.6	195	95	28	0	0	0
5200	28.8	161	64	4	0	0	0
5600	31.0	127	33	0	0	0	0
6000	33.2	94	3	0	0	0	0
6400	35.4	60	0	0	0	0	0

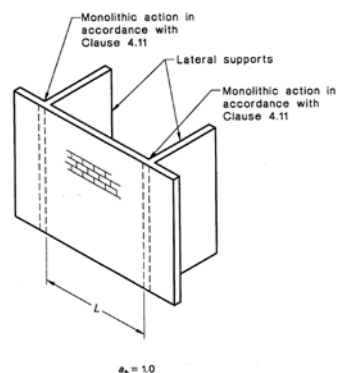
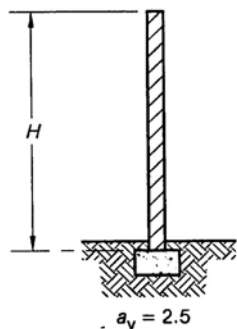


Table 11 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 20MPa

$a_v = 0.75$

$a_h = 2.5$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
2000	9.6	454	330	212	93	0	0
2400	11.5	425	304	191	78	0	0
2800	13.4	396	277	170	64	0	0
3200	15.3	366	250	150	49	0	0
3600	17.3	337	224	129	34	0	0
4000	19.2	308	197	108	19	0	0
4400	21.1	279	171	87	4	0	0
4800	23.0	249	144	67	0	0	0
5200	24.9	220	117	46	0	0	0
5600	26.8	191	91	25	0	0	0
6000	28.8	162	64	4	0	0	0
6400	30.7	132	38	0	0	0	0
6800	32.6	103	11	0	0	0	0
7200	34.5	74	0	0	0	0	0
7600	36.4	44	0	0	0	0	0

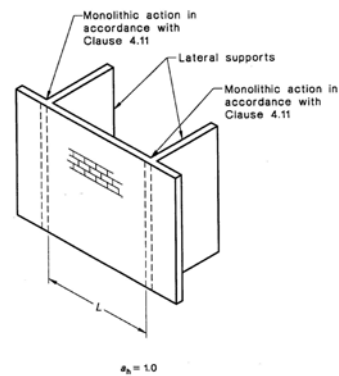
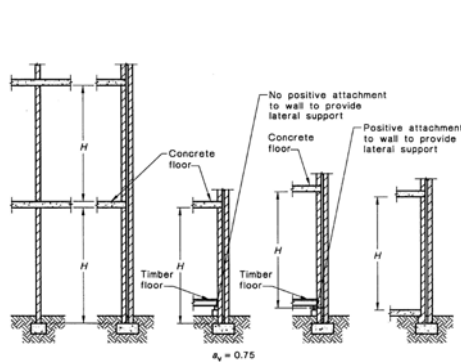


Table 12 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)							
Block: 20MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 20MPa		$a_v = 0.85$		$a_h = 2.5$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
2000	10.2	445	322	205	89	0	0
2400	12.2	414	293	183	73	0	0
2800	14.3	382	265	161	57	0	0
3200	16.3	351	237	139	41	0	0
3600	18.4	320	208	117	25	0	0
4000	20.4	289	180	95	9	0	0
4400	22.4	258	152	73	0	0	0
4800	24.5	227	123	51	0	0	0
5200	26.5	195	95	29	0	0	0
5600	28.6	164	67	6	0	0	0
6000	30.6	133	39	0	0	0	0
6400	32.7	102	10	0	0	0	0
6800	34.7	71	0	0	0	0	0
7200	36.7	40	0	0	0	0	0

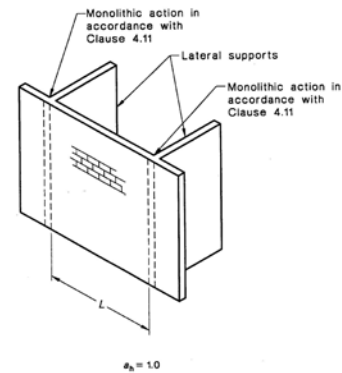
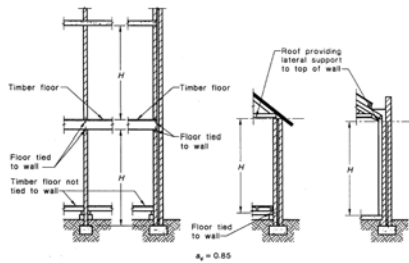


Table 13 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 20MPa

$a_v = 1.00$

$a_h = 2.5$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
2000	11.1	432	310	196	82	0	0
2400	13.3	398	279	172	65	0	0
2800	15.5	364	248	148	47	0	0
3200	17.7	330	217	124	30	0	0
3600	19.9	296	187	100	13	0	0
4000	22.1	263	156	76	0	0	0
4400	24.3	229	125	52	0	0	0
4800	26.6	195	95	28	0	0	0
5200	28.8	161	64	4	0	0	0
5600	31.0	127	33	0	0	0	0
6000	33.2	94	3	0	0	0	0
6400	35.4	60	0	0	0	0	0

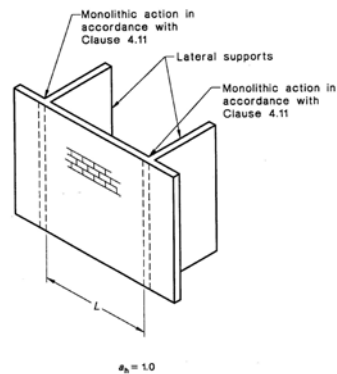
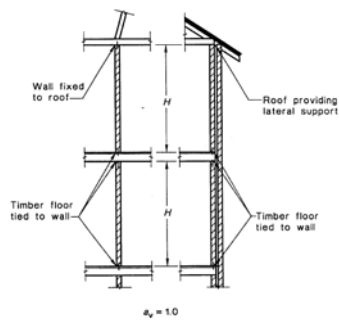


Table 14 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 20MPa

$a_v = 1.50$

$a_h = 2.5$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
1200	8.1	476	350	227	105	0	0
1600	10.8	435	313	198	84	0	0
2000	13.6	394	275	169	63	0	0
2400	16.3	352	237	140	42	0	0
2800	19.0	311	200	110	20	0	0
3200	21.7	269	162	81	0	0	0
3600	24.4	228	125	52	0	0	0
4000	27.1	187	87	22	0	0	0
4400	29.8	145	49	0	0	0	0
4800	32.5	104	12	0	0	0	0
5200	35.2	62	0	0	0	0	0

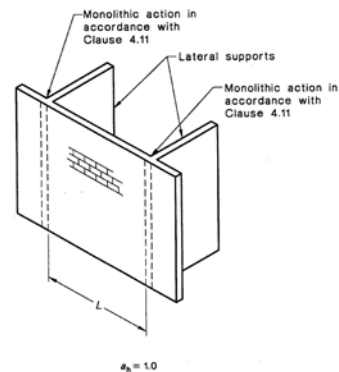
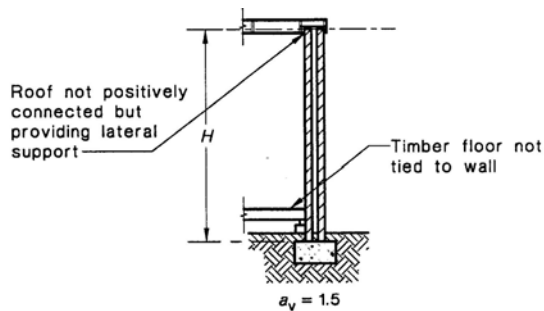


Table 15 - 2.2.3:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 20MPa

$a_v = 2.50$

$a_h = 2.5$

		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.2\text{mm}$	20mm	40mm	60mm	80mm	$\geq 82\text{mm}$
1200	10.5	440	317	202	86	0	0
1600	14.0	387	269	164	59	0	0
2000	17.5	333	220	126	32	0	0
2400	21.0	280	172	88	5	0	0
2800	24.5	227	123	50	0	0	0
3200	28.0	173	75	13	0	0	0
3600	31.5	120	26	0	0	0	0
4000	35.0	66	0	0	0	0	0

