

2.2.1 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.

15MPa Blocks, 15MPa Grout

Table 1 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 0.75$, height governs

Table 2 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 0.85$, height governs

Table 3 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 1.00$, height governs

Table 4 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 1.50$, height governs

Table 5 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 2.50$, height governs

Table 6 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 0.75$, $a_h = 1.0$, length governs

Table 7 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 0.85$, $a_h = 1.0$, length governs

Table 8 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 1.00$, $a_h = 1.0$, length governs

Table 9 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 1.50$, $a_h = 1.0$, length governs

Table 10 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 2.50$, $a_h = 1.0$, length governs

Table 11 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 0.75$, $a_h = 2.5$, length governs

Table 12 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 0.85$, $a_h = 2.5$, length governs

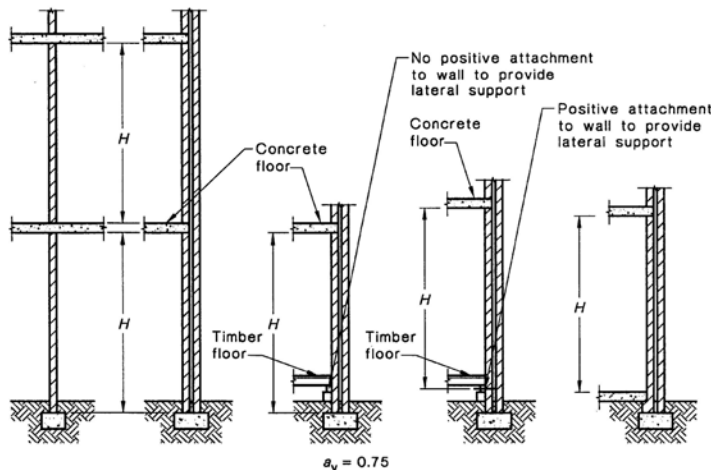
Table 13 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 1.00$, $a_h = 2.5$, length governs

Table 14 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 1.50$, $a_h = 2.5$, length governs

Table 15 - 2.2.1: 15MPa blocks, 15MPa grout, $a_v = 2.50$, $a_h = 2.5$, length governs

Table 1 – 2.2.1:

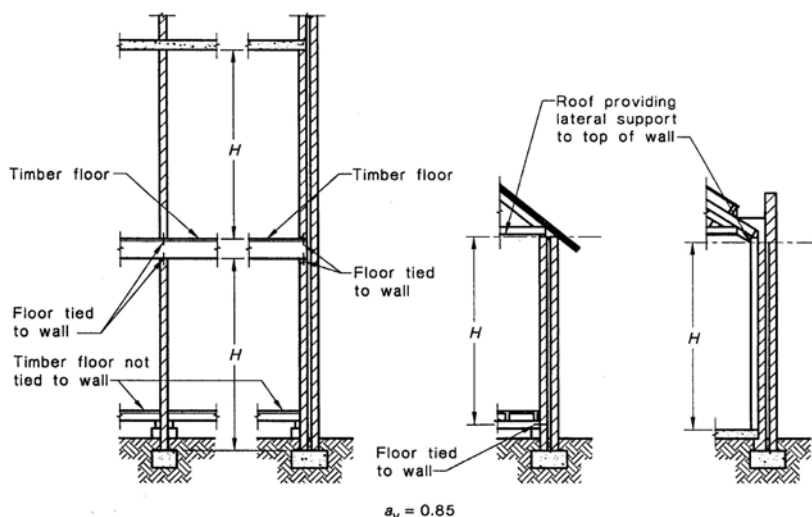
200 MORTARLESS WALL (chamfered blocks)															
Block: 15MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 15MPa		$a_v = 0.75$													
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.2 mm	20mm			40mm			60mm			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	421	311	351	390	203	281	360	95	212	329	0	142	298	0
2400	9	401	293	332	372	189	266	343	85	199	313	0	132	284	0
2800	10.5	381	275	314	354	175	250	326	75	186	298	0	122	270	0
3200	12	362	257	296	335	161	235	309	65	173	282	0	112	256	0
3600	13.5	342	239	278	317	147	219	292	55	161	267	0	102	242	0
4000	15	322	221	260	298	133	204	275	44	148	251	0	92	228	0
4400	16.5	302	203	241	280	119	188	258	34	135	236	0	82	214	0
4800	18	282	185	223	262	105	173	241	24	122	220	0	72	200	0
5200	19.5	262	167	205	243	91	157	224	14	110	205	0	62	186	0
5600	21	243	149	187	225	77	142	207	4	97	189	0	52	172	0
6000	22.5	223	131	169	206	62	126	190	0	84	174	0	42	158	0
6400	24	203	113	150	188	48	111	173	0	71	158	0	32	143	0
6800	25.5	183	95	132	170	34	95	156	0	58	143	0	21	129	0
7200	27	163	77	114	151	20	80	139	0	46	127	0	11	115	0
7600	28.5	143	59	96	133	6	64	122	0	33	112	0	1	101	0
8000	30	123	41	78	114	0	49	105	0	20	96	0	0	87	0
8400	31.5	104	23	59	96	0	33	88	0	7	81	0	0	73	0
8800	33	84	5	41	78	0	18	72	0	0	65	0	0	59	0
9200	34.5	64	0	23	59	0	2	55	0	0	50	0	0	45	0
9600	36	44	0	5	41	0	0	38	0	0	34	0	0	31	0



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

Table 2 - 2.2.1:

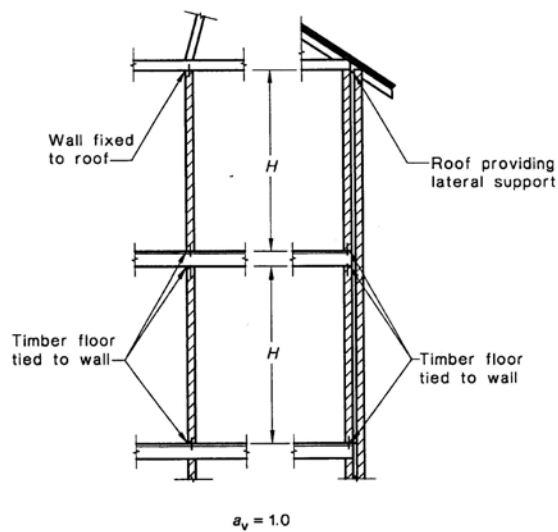
200 MORTARLESS WALL (chamfered blocks)															
Block: 15MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 15MPa		$a_v = 0.85$													
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.2 mm	20mm			40mm			60mm			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	408	299	339	378	194	241	310	79	181	284	0	121	257	0
2400	10.2	385	279	318	357	178	226	293	68	168	268	0	111	243	0
2800	11.9	363	258	297	336	162	210	276	58	155	252	0	101	229	0
3200	13.6	340	238	277	316	146	194	259	48	142	237	0	90	215	0
3600	15.3	318	217	256	295	130	179	242	38	129	221	0	80	200	0
4000	17	295	197	235	274	114	163	225	28	117	206	0	70	186	0
4400	18.7	273	177	215	253	98	148	208	17	104	190	0	60	172	0
4800	20.4	250	156	194	232	82	132	191	7	91	174	0	50	158	0
5200	22.1	228	136	173	211	66	116	173	0	78	159	0	39	144	0
5600	23.8	206	115	153	190	50	101	156	0	65	143	0	29	130	0
6000	25.5	183	95	132	170	34	85	139	0	52	127	0	19	115	0
6400	27.2	161	74	112	149	18	69	122	0	39	112	0	9	101	0
6800	28.9	138	54	91	128	3	54	105	0	26	96	0	0	87	0
7200	30.6	116	34	70	107	0	38	88	0	13	80	0	0	73	0
7600	32.3	93	13	50	86	0	22	71	0	0	65	0	0	59	0
8000	34	71	0	29	65	0	7	54	0	0	49	0	0	44	0
8400	35.7	48	0	8	45	0	0	37	0	0	33	0	0	30	0



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

Table 3 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)															
Block: 15MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 15MPa		$a_v = 1.00$													
		$k F_0$ - 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	388	281	320	360	180	255	331	78	190	303	0	126	274	0
2400	12	362	257	296	335	161	235	309	65	173	282	0	112	256	0
2800	14	335	233	272	311	142	214	286	51	156	262	0	99	237	0
3200	16	309	209	248	286	123	193	264	38	139	241	0	85	218	0
3600	18	282	185	223	262	105	173	241	24	122	220	0	72	200	0
4000	20	256	161	199	237	86	152	218	11	105	200	0	58	181	0
4400	22	229	137	175	213	67	131	196	0	88	179	0	45	162	0
4800	24	203	113	150	188	48	111	173	0	71	158	0	32	143	0
5200	26	176	89	126	163	30	90	151	0	54	138	0	18	125	0
5600	28	150	65	102	139	11	69	128	0	37	117	0	5	106	0
6000	30	123	41	78	114	0	49	105	0	20	96	0	0	87	0
6400	32	97	17	53	90	0	28	83	0	3	76	0	0	69	0
6800	34	71	0	29	65	0	7	60	0	0	55	0	0	50	0
7200	36	44	0	5	41	0	0	38	0	0	34	0	0	31	0



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

Table 4 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)

Block: 15MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 15MPa

$a_v = 1.50$

		$k F_0$ - 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	322	221	260	298	133	204	275	44	148	251	0	92	228	0
2400	18	282	185	223	262	105	173	241	24	122	220	0	72	200	0
2800	21	243	149	187	225	77	142	207	4	97	189	0	52	172	0
3200	24	203	113	150	188	48	111	173	0	71	158	0	32	143	0
3600	27	163	77	114	151	20	80	139	0	46	127	0	11	115	0
4000	30	123	41	78	114	0	49	105	0	20	96	0	0	87	0
4400	33	84	5	41	78	0	18	72	0	0	65	0	0	59	0
4800	36	44	0	5	41	0	0	38	0	0	34	0	0	31	0

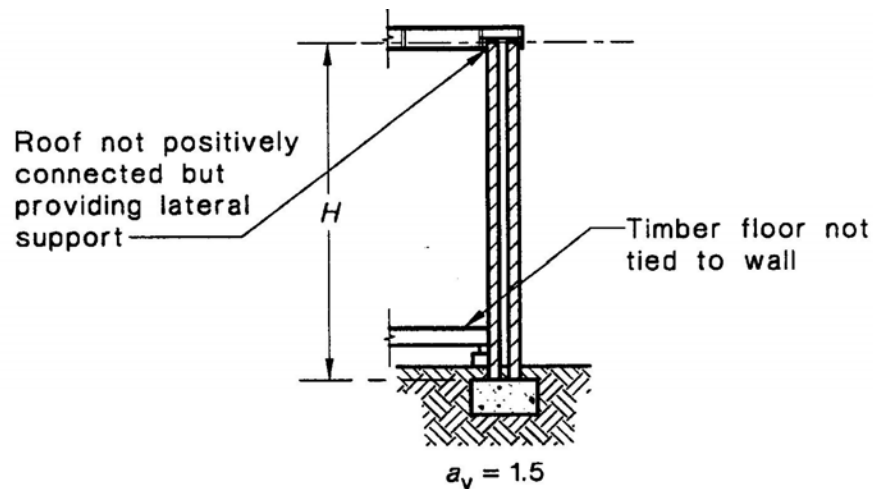
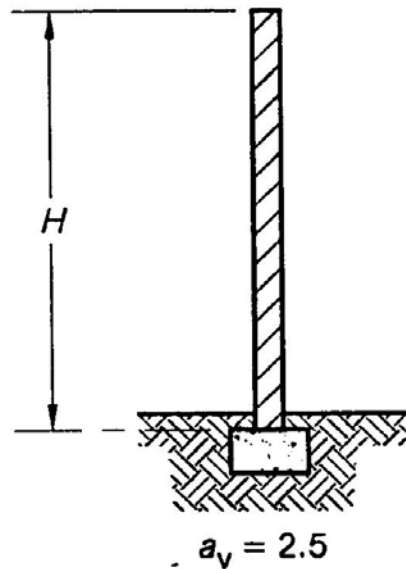


Table 5 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)															
Block: 15MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 15MPa		$a_v = 2.50$													
		$k F_0$ - 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	190	101	138	176	39	100	162	0	63	148	0	25	134	0
2400	30	123	41	78	114	0	49	105	0	20	96	0	0	87	0
2800	35	57	0	17	53	0	0	49	0	0	45	0	0	41	0



Free standing wall
No lateral support to top edge

Table 6 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.75$		$a_h = 1.0$			
		$k F_0$ - 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	440	328	217	105	0	0
2400	7.3	424	314	205	96	0	0
2800	8.5	408	299	194	88	0	0
3200	9.7	392	285	182	80	0	0
3600	10.9	376	270	171	72	0	0
4000	12.1	360	256	160	64	0	0
4400	13.3	344	241	148	56	0	0
4800	14.5	328	226	137	48	0	0
5200	15.8	312	212	126	39	0	0
5600	17.0	296	197	114	31	0	0
6000	18.2	280	183	103	23	0	0
6400	19.4	264	168	92	15	0	0
6800	20.6	248	154	80	7	0	0
7200	21.8	232	139	69	0	0	0
7600	23.0	216	124	57	0	0	0
8000	24.2	200	110	46	0	0	0
8400	25.5	184	95	35	0	0	0
8800	26.7	167	81	23	0	0	0
9200	27.9	151	66	12	0	0	0
9600	29.1	135	52	1	0	0	0
10000	30.3	119	37	0	0	0	0
10400	31.5	103	22	0	0	0	0
10800	32.7	87	8	0	0	0	0
11200	33.9	71	0	0	0	0	0
11600	35.2	55	0	0	0	0	0
12000	36.4	39	0	0	0	0	0

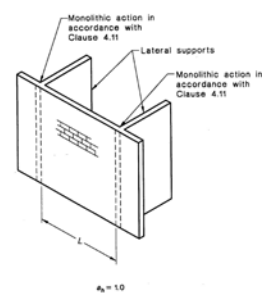
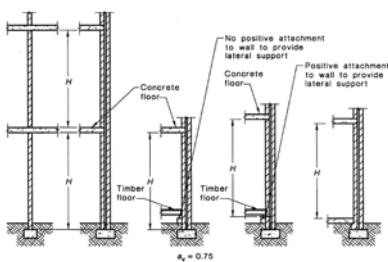


Table 7 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.85$		$a_h = 1.0$			
		$k F_0$ - 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	435	324	213	102	0	0
2400	7.7	418	308	201	93	0	0
2800	9.0	401	293	189	85	0	0
3200	10.3	384	277	177	76	0	0
3600	11.6	367	262	164	67	0	0
4000	12.9	350	246	152	59	0	0
4400	14.2	333	231	140	50	0	0
4800	15.5	315	215	128	41	0	0
5200	16.8	298	200	116	33	0	0
5600	18.1	281	184	104	24	0	0
6000	19.4	264	169	92	15	0	0
6400	20.7	247	153	80	6	0	0
6800	21.9	230	138	68	0	0	0
7200	23.2	213	122	56	0	0	0
7600	24.5	196	107	44	0	0	0
8000	25.8	179	91	31	0	0	0
8400	27.1	162	76	19	0	0	0
8800	28.4	145	60	7	0	0	0
9200	29.7	128	44	0	0	0	0
9600	31.0	111	29	0	0	0	0
10000	32.3	93	13	0	0	0	0
10400	33.6	76	0	0	0	0	0
10800	34.8	59	0	0	0	0	0
11200	36.1	42	0	0	0	0	0

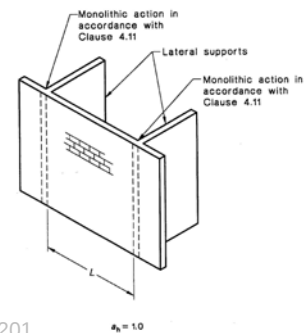
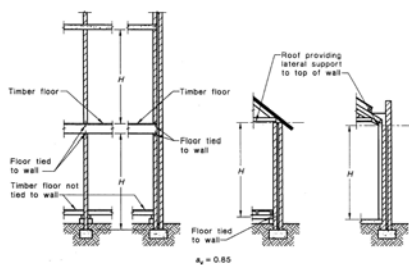


Table 8 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 1.00$		$a_h = 1.0$			
		$k F_0$ - 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	7.0	428	317	208	98	0	0
2400	8.4	409	300	195	89	0	0
2800	9.8	391	283	181	79	0	0
3200	11.2	372	267	168	70	0	0
3600	12.6	354	250	155	61	0	0
4000	14.0	335	233	142	51	0	0
4400	15.4	317	216	129	42	0	0
4800	16.8	298	199	116	32	0	0
5200	18.2	280	183	103	23	0	0
5600	19.6	261	166	90	14	0	0
6000	21.0	243	149	77	4	0	0
6400	22.4	224	132	63	0	0	0
6800	23.8	206	115	50	0	0	0
7200	25.2	187	98	37	0	0	0
7600	26.6	168	82	24	0	0	0
8000	28.0	150	65	11	0	0	0
8400	29.4	131	48	0	0	0	0
8800	30.8	113	31	0	0	0	0
9200	32.2	94	14	0	0	0	0
9600	33.6	76	0	0	0	0	0
10000	35.0	57	0	0	0	0	0
10400	36.4	39	0	0	0	0	0

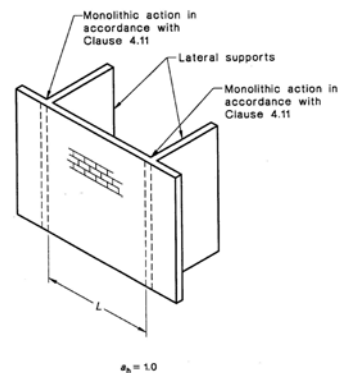
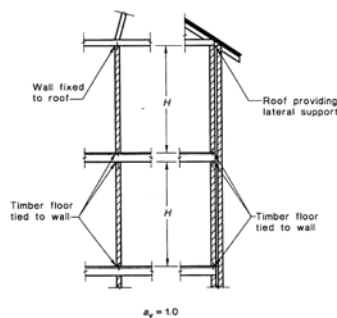


Table 9 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 1.50$		$a_h = 1.0$			
		$k F_0$ - 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	441	339	225	111	0	0
1600	6.9	430	319	209	99	0	0
2000	8.6	407	298	193	88	0	0
2400	10.3	384	278	177	76	0	0
2800	12.0	362	257	161	65	0	0
3200	13.7	339	236	145	53	0	0
3600	15.4	316	216	129	42	0	0
4000	17.1	294	195	113	30	0	0
4400	18.9	271	175	97	19	0	0
4800	20.6	248	154	81	7	0	0
5200	22.3	225	133	64	0	0	0
5600	24.0	203	113	48	0	0	0
6000	25.7	180	92	32	0	0	0
6400	27.4	157	72	16	0	0	0
6800	29.1	135	51	0	0	0	0
7200	30.9	112	30	0	0	0	0
7600	32.6	89	10	0	0	0	0
8000	34.3	67	0	0	0	0	0
8400	36.0	44	0	0	0	0	0

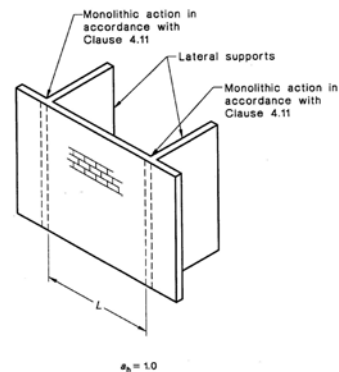
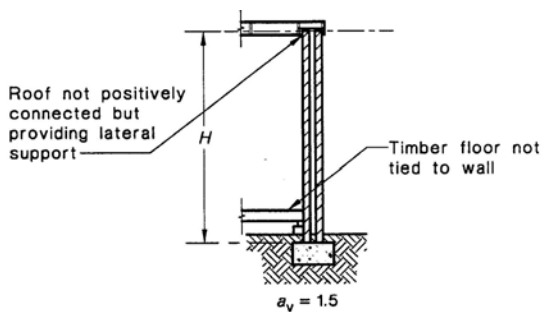


Table 10 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 2.50$		$a_h = 1.0$			
		$k F_0$ - 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	$\geq 82\text{mm}$
1200	6.6	433	321	211	101	0	0
1600	8.9	403	295	190	86	0	0
2000	11.1	374	268	170	71	0	0
2400	13.3	345	242	149	56	0	0
2800	15.5	315	215	128	41	0	0
3200	17.7	286	188	107	26	0	0
3600	19.9	257	162	87	11	0	0
4000	22.1	228	135	66	0	0	0
4400	24.3	198	109	45	0	0	0
4800	26.6	169	82	24	0	0	0
5200	28.8	140	55	4	0	0	0
5600	31.0	110	29	0	0	0	0
6000	33.2	81	2	0	0	0	0
6400	35.4	52	0	0	0	0	0

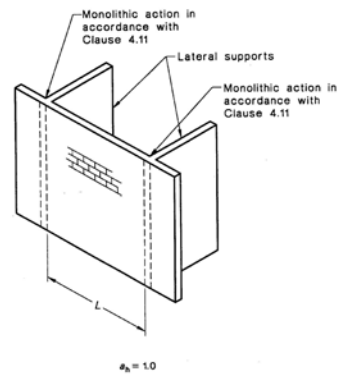
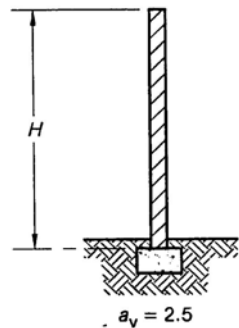


Table 11 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.75$		$a_h = 2.5$			
		$k F_0$ - 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	9.6	394	286	184	81	0	0
2400	11.5	368	263	166	68	0	0
2800	13.4	343	240	148	55	0	0
3200	15.3	317	217	130	42	0	0
3600	17.3	292	194	112	29	0	0
4000	19.2	267	171	94	16	0	0
4400	21.1	241	148	76	4	0	0
4800	23.0	216	125	58	0	0	0
5200	24.9	191	102	40	0	0	0
5600	26.8	165	79	22	0	0	0
6000	28.8	140	56	4	0	0	0
6400	30.7	115	33	0	0	0	0
6800	32.6	89	10	0	0	0	0
7200	34.5	64	0	0	0	0	0
7600	36.4	38	0	0	0	0	0

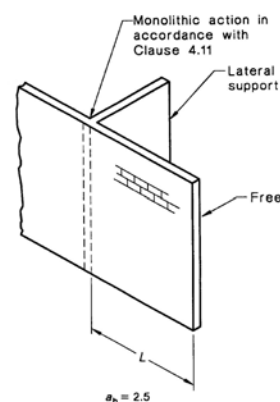
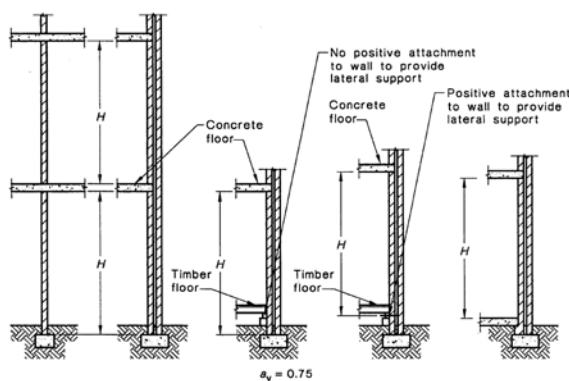


Table 12 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 0.85$		$a_h = 2.5$			
		$k F_0$ - 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	10.2	385	279	178	77	0	0
2400	12.2	358	254	159	63	0	0
2800	14.3	331	230	139	49	0	0
3200	16.3	304	205	120	36	0	0
3600	18.4	277	181	101	22	0	0
4000	20.4	250	156	82	8	0	0
4400	22.4	223	131	63	0	0	0
4800	24.5	196	107	44	0	0	0
5200	26.5	169	82	25	0	0	0
5600	28.6	142	58	6	0	0	0
6000	30.6	115	33	0	0	0	0
6400	32.7	88	9	0	0	0	0
6800	34.7	61	0	0	0	0	0
7200	36.7	34	0	0	0	0	0

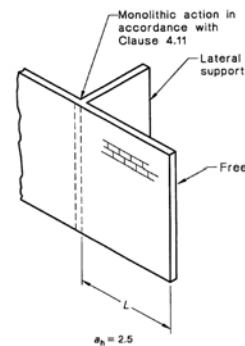
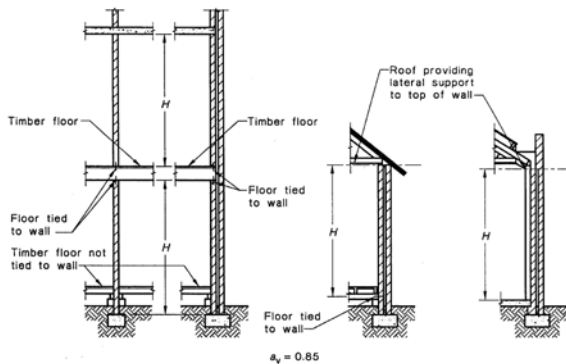


Table 13 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 1.00$		$a_h = 2.5$			
		$k F_0$ - 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	374	268	170	71	0	0
2400	13.3	345	242	149	56	0	0
2800	15.5	315	215	128	41	0	0
3200	17.7	286	188	107	26	0	0
3600	19.9	257	162	87	11	0	0
4000	22.1	228	135	66	0	0	0
4400	24.3	198	109	45	0	0	0
4800	26.6	169	82	24	0	0	0
5200	28.8	140	55	4	0	0	0
5600	31.0	110	29	0	0	0	0
6000	33.2	81	2	0	0	0	0
6400	35.4	52	0	0	0	0	0

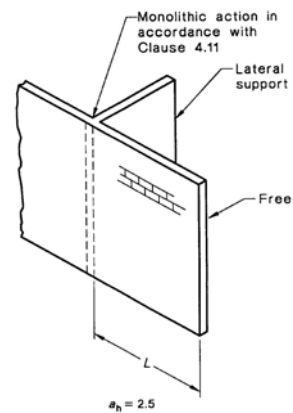
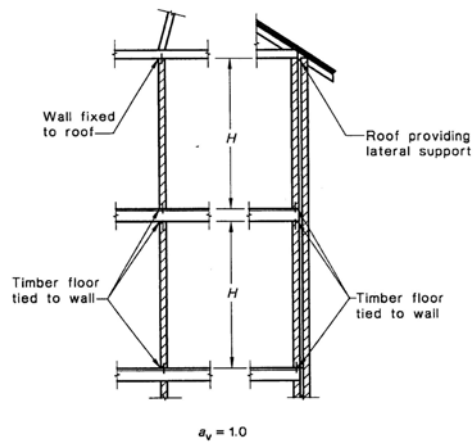


Table 14 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 1.50$		$a_h = 2.5$			
		$k F_0$ - 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	413	303	197	91	0	0
1600	10.8	377	271	172	72	0	0
2000	13.6	341	238	146	54	0	0
2400	16.3	305	206	121	36	0	0
2800	19.0	269	173	95	18	0	0
3200	21.7	233	141	70	0	0	0
3600	24.4	198	108	45	0	0	0
4000	27.1	162	75	19	0	0	0
4400	29.8	126	43	0	0	0	0
4800	32.5	90	10	0	0	0	0
5200	35.2	54	0	0	0	0	0

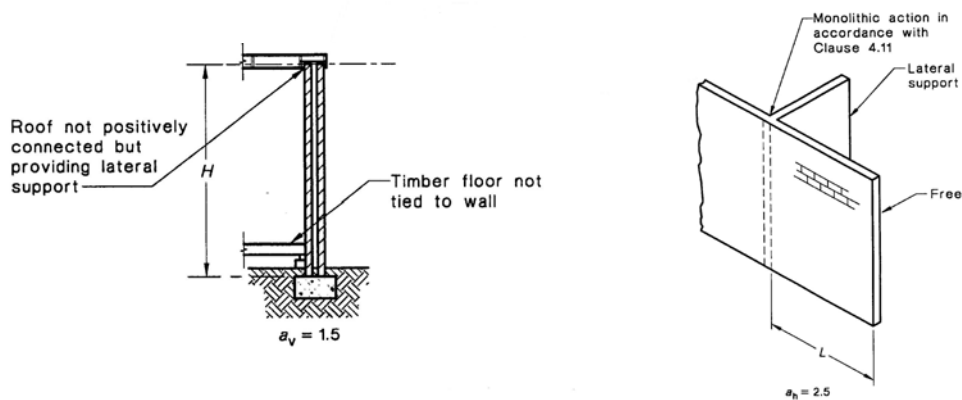


Table 15 - 2.2.1:

200 MORTARLESS WALL (chamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 15MPa		$a_v = 2.50$		$a_h = 2.5$			
		$k F_0$ - 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	381	275	175	75	0	0
1600	14.0	335	233	142	51	0	0
2000	17.5	289	191	109	28	0	0
2400	21.0	243	149	77	4	0	0
2800	24.5	196	107	44	0	0	0
3200	28.0	150	65	11	0	0	0
3600	31.5	104	23	0	0	0	0
4000	35.0	57	0	0	0	0	0

