

2.2.2 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.

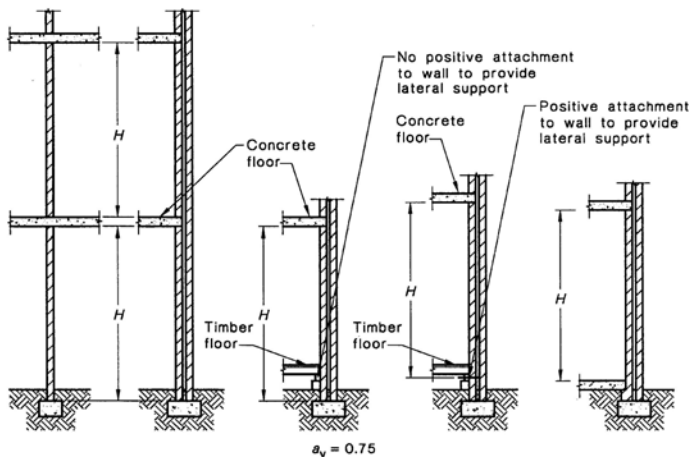
15MPa Blocks, 20MPa Grout *

Table 1 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 0.75$, height governs
Table 2 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 0.85$, height governs
Table 3 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 1.00$, height governs
Table 4 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 1.50$, height governs
Table 5 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 2.50$, height governs
Table 6 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 0.75$, $a_h = 1.0$, length governs
Table 7 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 0.85$, $a_h = 1.0$, length governs
Table 8 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 1.00$, $a_h = 1.0$, length governs
Table 9 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 1.50$, $a_h = 1.0$, length governs
Table 10 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 2.50$, $a_h = 1.0$, length governs
Table 11 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 0.75$, $a_h = 2.5$, length governs
Table 12 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 0.85$, $a_h = 2.5$, length governs
Table 13 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 1.00$, $a_h = 2.5$, length governs
Table 14 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 1.50$, $a_h = 2.5$, length governs
Table 15 - 2.2.2:	15MPa blocks, 20MPa grout, $a_v = 2.50$, $a_h = 2.5$, length governs

* Note: The design loads given in the tables in this section also apply to walls constructed with 15Mpa blocks and 25Mpa grout.

Table 1 - 2.2.2:
200 MORTARLESS WALL (unchamfered blocks)
Block: 15MPa Wall span: VERTICAL (reinforced vertically)
Grout: 20MPa $a_v = 0.75$

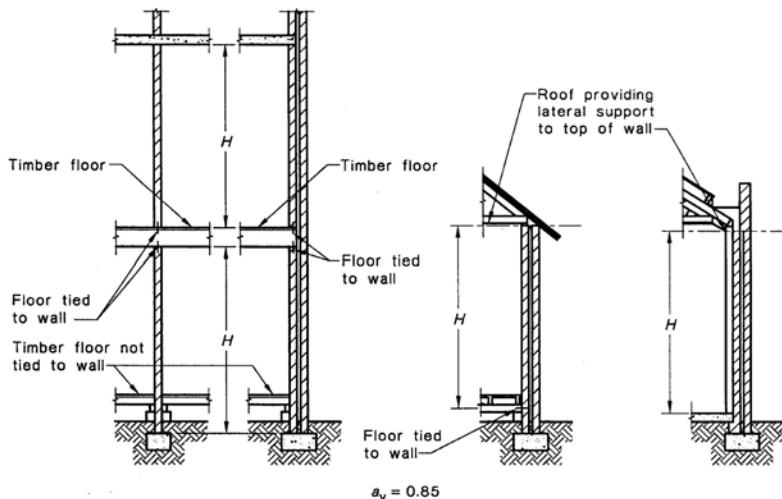
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.7 mm	20mm			40mm			60mm			80mm			≥ 87 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	7.5	484	365	408	451	248	333	417	131	257	384	13	182	351	0
2400	9	461	344	387	430	231	314	398	118	242	366	5	170	334	0
2800	10.5	439	323	366	408	214	296	378	106	227	348	0	157	318	0
3200	12	416	302	344	387	198	278	358	93	212	330	0	145	301	0
3600	13.5	393	281	323	366	181	260	339	81	196	312	0	133	285	0
4000	15	370	260	302	345	164	242	319	69	181	294	0	121	268	0
4400	16.5	347	239	281	323	148	223	299	56	166	275	0	108	251	0
4800	18	324	218	260	302	131	205	280	44	151	257	0	96	235	0
5200	19.5	302	197	239	281	114	187	260	32	135	239	0	84	218	0
5600	21	279	176	218	260	98	169	240	19	120	221	0	71	202	0
6000	22.5	256	155	197	238	81	151	221	7	105	203	0	59	185	0
6400	24	233	134	176	217	64	133	201	0	90	185	0	47	169	0
6800	25.5	210	113	154	196	47	114	181	0	74	167	0	34	152	0
7200	27	188	92	133	175	31	96	162	0	59	149	0	22	136	0
7600	28.5	165	71	112	153	14	78	142	0	44	131	0	10	119	0
8000	30	142	50	91	132	0	60	122	0	29	113	0	0	103	0
8400	31.5	119	29	70	111	0	42	103	0	13	94	0	0	86	0
8800	33	96	8	49	90	0	24	83	0	0	76	0	0	70	0
9200	34.5	74	0	28	68	0	5	63	0	0	58	0	0	53	0
9600	36	51	0	7	47	0	0	44	0	0	40	0	0	37	0



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

Table 2 - 2.2.2:
200 MORTARLESS WALL (unchamfered blocks)
Block: 15MPa Wall span: VERTICAL (reinforced vertically)
Grout: 20MPa $a_v = 0.85$

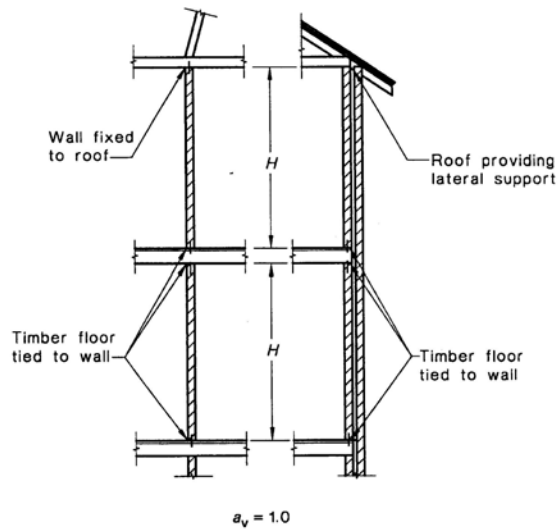
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.7 mm	20mm			40mm			60mm			80mm			≥ 87 mm
			e_2/e_1			e_2/e_1			e_2/e_1			e_2/e_1			
			1	0	-1	1	0	-1	1	0	-1	1	0	-1	
2000	8.5	487	364	409	453	245	332	419	127	256	386	8	180	352	0
2400	10.2	460	339	384	428	226	311	396	112	238	365	0	166	333	0
2800	11.9	433	315	359	403	206	290	373	98	221	343	0	151	313	0
3200	13.6	406	290	334	378	187	268	350	83	203	322	0	137	294	0
3600	15.3	379	265	309	353	167	247	327	69	185	301	0	122	275	0
4000	17	352	241	284	328	147	226	304	54	167	280	0	108	255	0
4400	18.7	326	216	260	303	128	204	281	40	149	258	0	94	236	0
4800	20.4	299	191	235	278	108	183	258	25	131	237	0	79	216	0
5200	22.1	272	167	210	253	89	161	234	10	113	216	0	65	197	0
5600	23.8	245	142	185	228	69	140	211	0	95	194	0	50	177	0
6000	25.5	218	117	160	203	49	119	188	0	77	173	0	36	158	0
6400	27.2	191	93	135	178	30	97	165	0	59	152	0	21	139	0
6800	28.9	165	68	111	153	10	76	142	0	41	131	0	7	119	0
7200	30.6	138	43	86	128	0	55	119	0	23	109	0	0	100	0
7600	32.3	111	19	61	103	0	33	96	0	6	88	0	0	80	0
8000	34	84	0	36	78	0	12	73	0	0	67	0	0	61	0
8400	35.7	57	0	11	53	0	0	49	0	0	45	0	0	42	0



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

Table 3 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)															
Block: 15MPa		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													
		≤ 8.7 mm	20mm			40mm			60mm			80mm			≥ 87 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	463	342	387	431	228	314	399	114	241	367	0	168	335	0
2400	12	431	313	357	402	205	288	372	97	220	342	0	151	312	0
2800	14	400	284	328	372	182	263	345	80	198	317	0	134	289	0
3200	16	368	255	299	343	159	238	317	63	177	292	0	117	267	0
3600	18	337	226	270	313	136	213	290	46	156	267	0	100	244	0
4000	20	305	197	241	284	113	188	263	28	135	242	0	82	221	0
4400	22	274	168	211	255	90	163	236	11	114	217	0	65	198	0
4800	24	242	139	182	225	67	138	209	0	93	192	0	48	175	0
5200	26	210	110	153	196	44	112	181	0	72	167	0	31	152	0
5600	28	179	81	124	167	20	87	154	0	51	142	0	14	130	0
6000	30	147	52	95	137	0	62	127	0	30	117	0	0	107	0
6400	32	116	23	65	108	0	37	100	0	9	92	0	0	84	0
6800	34	84	0	36	78	0	12	73	0	0	67	0	0	61	0
7200	36	53	0	7	49	0	0	45	0	0	42	0	0	38	0



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

Table 4 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)															
Block: 15MPa		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													
		≤ 8.7 mm	20mm			40mm			60mm			80mm			≥ 87 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	384	270	314	358	170	251	331	71	188	305	0	125	278	0
2400	18	337	226	270	313	136	213	290	46	156	267	0	100	244	0
2800	21	289	183	226	269	101	175	249	20	125	229	0	74	209	0
3200	24	242	139	182	225	67	138	209	0	93	192	0	48	175	0
3600	27	195	96	138	181	32	100	168	0	61	154	0	23	141	0
4000	30	147	52	95	137	0	62	127	0	30	117	0	0	107	0
4400	33	100	8	51	93	0	24	86	0	0	79	0	0	72	0
4800	36	53	0	7	49	0	0	45	0	0	42	0	0	38	0

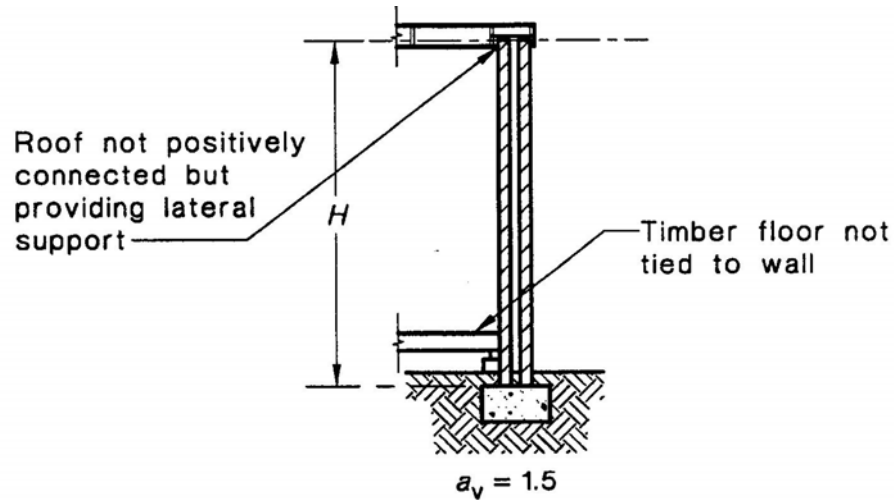
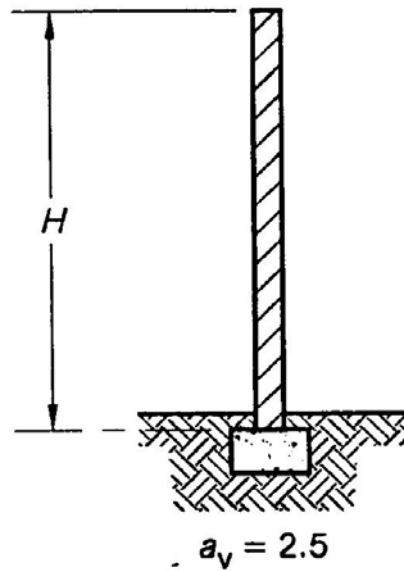


Table 5 - 2.2.2:

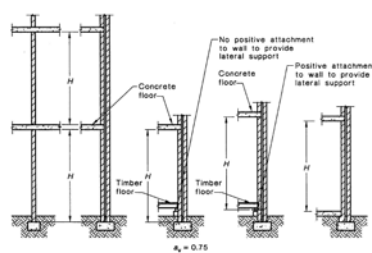
200 MORTARLESS WALL (unchamfered blocks)															
Block: 15MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 20MPa		$a_v = 2.50$													
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.7 mm	20mm			40mm			60mm			80mm			≥ 87 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	226	125	168	211	55	125	195	0	83	179	0	40	164	0
2400	30	147	52	95	137	0	62	127	0	30	117	0	0	107	0
2800	35	68	0	22	64	0	0	59	0	0	54	0	0	50	0



Free standing wall
No lateral support to top edge

Table 6 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	6.1	525	399	274	148	22	0
2400	7.3	506	382	260	137	15	0
2800	8.5	487	364	246	127	8	0
3200	9.7	468	347	232	117	2	0
3600	10.9	448	329	218	106	0	0
4000	12.1	429	311	204	96	0	0
4400	13.3	410	294	190	86	0	0
4800	14.5	391	276	176	75	0	0
5200	15.8	372	259	162	65	0	0
5600	17.0	353	241	148	54	0	0
6000	18.2	334	223	134	44	0	0
6400	19.4	315	206	120	34	0	0
6800	20.6	295	188	106	23	0	0
7200	21.8	276	171	92	13	0	0
7600	23.0	257	153	78	2	0	0
8000	24.2	238	135	64	0	0	0
8400	25.5	219	118	50	0	0	0
8800	26.7	200	100	36	0	0	0
9200	27.9	181	83	22	0	0	0
9600	29.1	162	65	8	0	0	0
10000	30.3	142	47	0	0	0	0
10400	31.5	123	30	0	0	0	0
10800	32.7	104	12	0	0	0	0
11200	33.9	85	0	0	0	0	0
11600	35.2	66	0	0	0	0	0
12000	36.4	47	0	0	0	0	0



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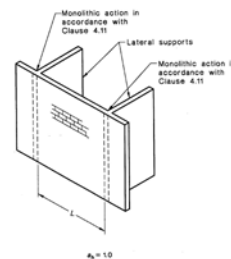


Table 7 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	6.5	519	394	269	144	20	0
2400	7.7	498	375	254	133	13	0
2800	9.0	478	356	239	122	5	0
3200	10.3	458	338	224	111	0	0
3600	11.6	437	319	209	100	0	0
4000	12.9	417	300	195	89	0	0
4400	14.2	397	281	180	78	0	0
4800	15.5	376	263	165	67	0	0
5200	16.8	356	244	150	56	0	0
5600	18.1	336	225	135	45	0	0
6000	19.4	315	206	120	34	0	0
6400	20.7	295	188	105	23	0	0
6800	21.9	274	169	90	12	0	0
7200	23.2	254	150	75	1	0	0
7600	24.5	234	131	61	0	0	0
8000	25.8	213	113	46	0	0	0
8400	27.1	193	94	31	0	0	0
8800	28.4	173	75	16	0	0	0
9200	29.7	152	57	1	0	0	0
9600	31.0	132	38	0	0	0	0
10000	32.3	111	19	0	0	0	0
10400	33.6	91	0	0	0	0	0
10800	34.8	71	0	0	0	0	0
11200	36.1	50	0	0	0	0	0

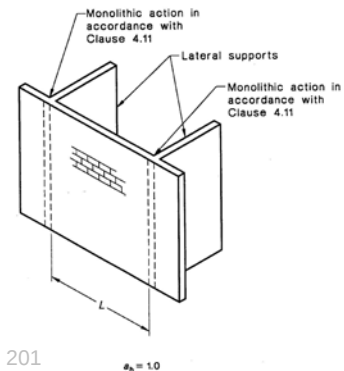
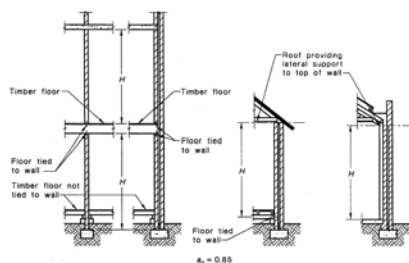


Table 8 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 20MPa		$a_v = 1.00$		$a_h = 1.0$			
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	7.0	510	386	263	140	17	0
2400	8.4	488	365	247	128	9	0
2800	9.8	466	345	230	116	1	0
3200	11.2	444	325	214	104	0	0
3600	12.6	422	305	198	92	0	0
4000	14.0	400	284	182	80	0	0
4400	15.4	378	264	166	68	0	0
4800	16.8	356	244	150	56	0	0
5200	18.2	333	223	134	44	0	0
5600	19.6	311	203	117	32	0	0
6000	21.0	289	183	101	20	0	0
6400	22.4	267	162	85	8	0	0
6800	23.8	245	142	69	0	0	0
7200	25.2	223	122	53	0	0	0
7600	26.6	201	101	37	0	0	0
8000	28.0	179	81	20	0	0	0
8400	29.4	157	61	4	0	0	0
8800	30.8	135	40	0	0	0	0
9200	32.2	113	20	0	0	0	0
9600	33.6	90	0	0	0	0	0
10000	35.0	68	0	0	0	0	0
10400	36.4	46	0	0	0	0	0

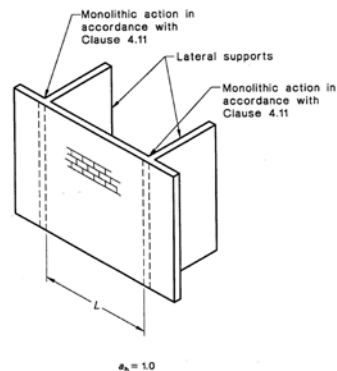
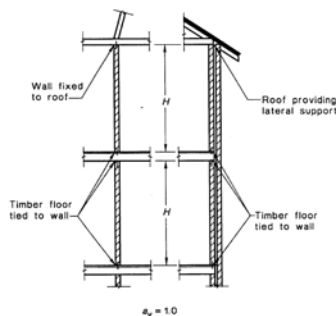


Table 9 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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)					
√HxL (mm)	S _r	Eccentricity e ₁					
		≤ 8.7mm	20mm	40mm	60mm	80mm	≥ 87mm
1200	5.1	526	413	284	156	27	0
1600	6.9	512	388	264	141	18	0
2000	8.6	485	363	245	126	8	0
2400	10.3	458	338	225	112	0	0
2800	12.0	431	313	205	97	0	0
3200	13.7	404	288	185	82	0	0
3600	15.4	377	263	165	68	0	0
4000	17.1	350	239	146	53	0	0
4400	18.9	323	214	126	38	0	0
4800	20.6	296	189	106	24	0	0
5200	22.3	269	164	86	9	0	0
5600	24.0	242	139	67	0	0	0
6000	25.7	215	114	47	0	0	0
6400	27.4	188	89	27	0	0	0
6800	29.1	161	64	7	0	0	0
7200	30.9	134	39	0	0	0	0
7600	32.6	107	15	0	0	0	0
8000	34.3	80	0	0	0	0	0
8400	36.0	52	0	0	0	0	0

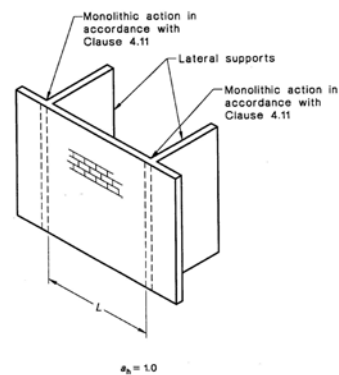
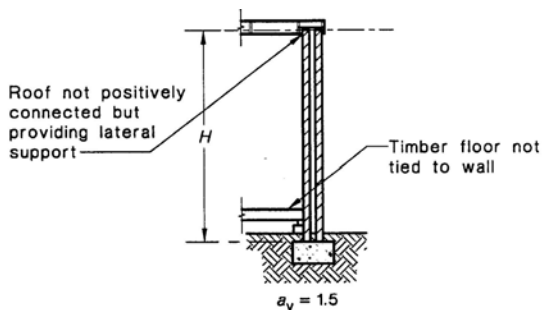


Table 10 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	6.6	516	391	267	143	19	0
1600	8.9	481	359	241	124	6	0
2000	11.1	446	327	216	105	0	0
2400	13.3	411	295	190	86	0	0
2800	15.5	376	263	165	67	0	0
3200	17.7	341	230	139	48	0	0
3600	19.9	306	198	114	29	0	0
4000	22.1	271	166	88	10	0	0
4400	24.3	236	134	63	0	0	0
4800	26.6	202	102	37	0	0	0
5200	28.8	167	70	11	0	0	0
5600	31.0	132	38	0	0	0	0
6000	33.2	97	5	0	0	0	0
6400	35.4	62	0	0	0	0	0

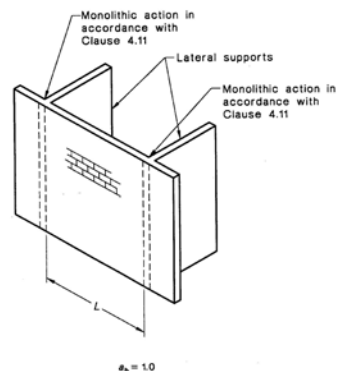
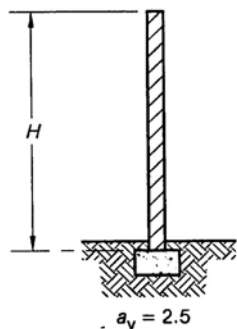


Table 11 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	9.6	469	348	233	118	2	0
2400	11.5	439	320	211	101	0	0
2800	13.4	409	293	189	85	0	0
3200	15.3	379	265	167	68	0	0
3600	17.3	348	237	144	52	0	0
4000	19.2	318	209	122	36	0	0
4400	21.1	288	181	100	19	0	0
4800	23.0	258	154	78	3	0	0
5200	24.9	227	126	56	0	0	0
5600	26.8	197	98	34	0	0	0
6000	28.8	167	70	12	0	0	0
6400	30.7	137	42	0	0	0	0
6800	32.6	106	14	0	0	0	0
7200	34.5	76	0	0	0	0	0
7600	36.4	46	0	0	0	0	0

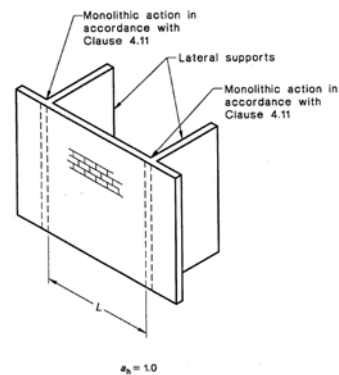
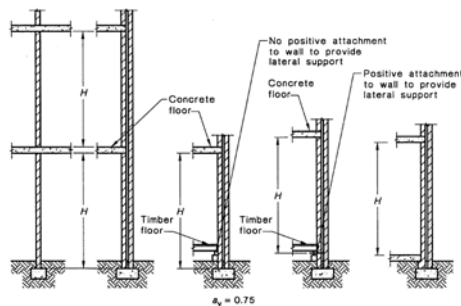


Table 12 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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)					
$\sqrt{H \times L}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	10.2	460	339	226	112	0	0
2400	12.2	427	310	202	95	0	0
2800	14.3	395	280	179	77	0	0
3200	16.3	363	250	155	60	0	0
3600	18.4	331	221	132	42	0	0
4000	20.4	299	191	108	25	0	0
4400	22.4	266	162	84	7	0	0
4800	24.5	234	132	61	0	0	0
5200	26.5	202	102	37	0	0	0
5600	28.6	170	73	14	0	0	0
6000	30.6	138	43	0	0	0	0
6400	32.7	105	13	0	0	0	0
6800	34.7	73	0	0	0	0	0
7200	36.7	41	0	0	0	0	0

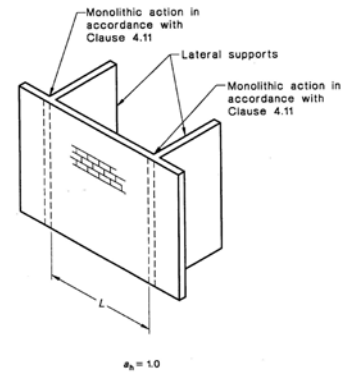
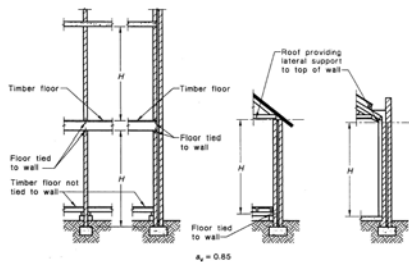


Table 13 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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)					
√HxL (mm)	S _r	Eccentricity e ₁					
		≤ 8.7mm	20mm	40mm	60mm	80mm	≥ 87mm
2000	11.1	446	327	216	105	0	0
2400	13.3	411	295	190	86	0	0
2800	15.5	376	263	165	67	0	0
3200	17.7	341	230	139	48	0	0
3600	19.9	306	198	114	29	0	0
4000	22.1	271	166	88	10	0	0
4400	24.3	236	134	63	0	0	0
4800	26.6	202	102	37	0	0	0
5200	28.8	167	70	11	0	0	0
5600	31.0	132	38	0	0	0	0
6000	33.2	97	5	0	0	0	0
6400	35.4	62	0	0	0	0	0

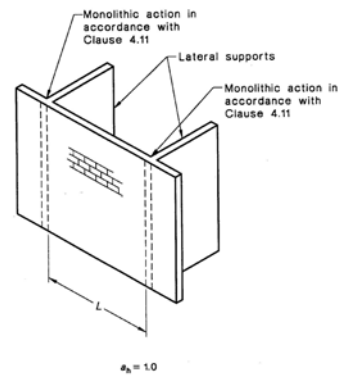
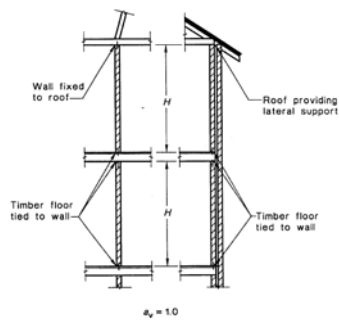


Table 14 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	8.1	492	369	250	130	10	0
1600	10.8	450	330	218	107	0	0
2000	13.6	407	291	187	84	0	0
2400	16.3	364	251	156	60	0	0
2800	19.0	321	212	125	37	0	0
3200	21.7	278	173	93	14	0	0
3600	24.4	236	133	62	0	0	0
4000	27.1	193	94	31	0	0	0
4400	29.8	150	55	0	0	0	0
4800	32.5	107	15	0	0	0	0
5200	35.2	65	0	0	0	0	0

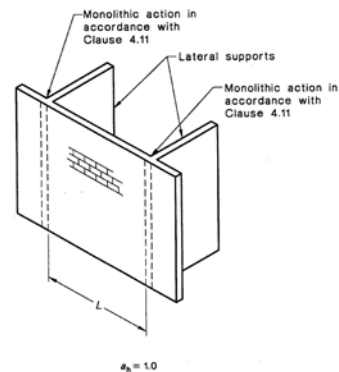
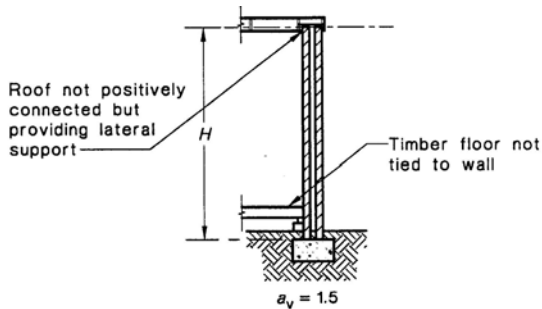


Table 15 - 2.2.2:

200 MORTARLESS WALL (unchamfered blocks)							
Block: 15MPa		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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	10.5	455	335	222	110	0	0
1600	14.0	400	284	182	80	0	0
2000	17.5	345	233	142	50	0	0
2400	21.0	289	183	101	20	0	0
2800	24.5	234	132	61	0	0	0
3200	28.0	179	81	20	0	0	0
3600	31.5	124	30	0	0	0	0
4000	35.0	68	0	0	0	0	0

