

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

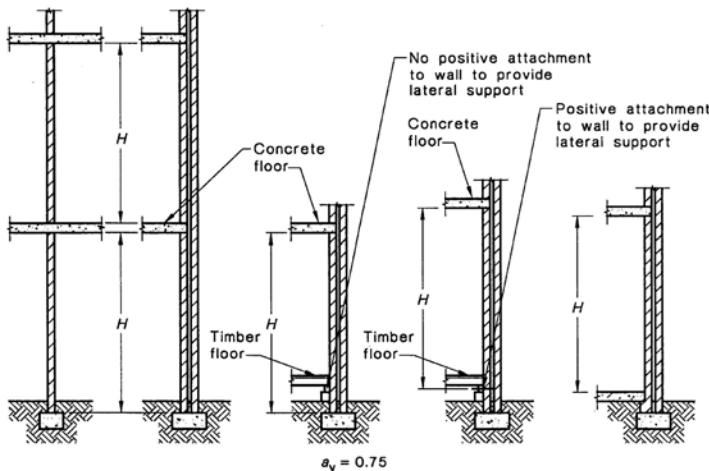
The tables in this section are for walls designed using refined calculation where the design is based on the height or the length of the wall. Refer to Section 2.2 to determine if wall height or wall length governs the design of the wall.

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:

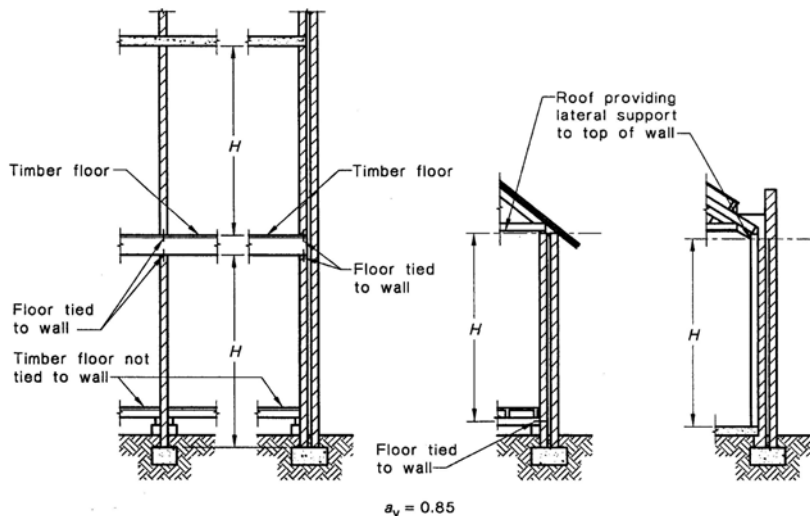
200 MORTARLESS WALL (unchamfered blocks)															
Block: 20MPa		Wall span: VERTICAL (reinforced vertically)													
Grout: 20MPa		$a_v = 0.75$													
		$k F_0$ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
H (mm)	S_r	Eccentricity e_1													
		≤ 8.7 mm	20mm			40mm			60mm			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	531	400	447	494	272	365	458	143	282	421	15	200	384	0
2400	9	506	377	424	471	253	345	436	130	265	401	6	186	366	0
2800	10.5	481	354	401	448	235	325	415	116	249	381	0	173	348	0
3200	12	456	331	378	424	217	305	393	102	232	362	0	159	330	0
3600	13.5	431	308	355	401	198	285	371	89	215	342	0	146	312	0
4000	15	406	285	331	378	180	265	350	75	199	322	0	132	294	0
4400	16.5	381	262	308	355	162	245	328	62	182	302	0	119	276	0
4800	18	356	239	285	331	144	225	307	48	165	282	0	105	258	0
5200	19.5	331	216	262	308	125	205	285	35	148	262	0	92	240	0
5600	21	306	193	239	285	107	185	264	21	132	243	0	78	221	0
6000	22.5	281	170	216	261	89	165	242	7	115	223	0	65	203	0
6400	24	256	147	193	238	70	145	220	0	98	203	0	51	185	0
6800	25.5	231	124	169	215	52	126	199	0	82	183	0	38	167	0
7200	27	206	101	146	192	34	106	177	0	65	163	0	24	149	0
7600	28.5	181	78	123	168	15	86	156	0	48	143	0	11	131	0
8000	30	156	55	100	145	0	66	134	0	32	123	0	0	113	0
8400	31.5	131	32	77	122	0	46	113	0	15	104	0	0	95	0
8800	33	106	9	54	98	0	26	91	0	0	84	0	0	76	0
9200	34.5	81	0	30	75	0	6	69	0	0	64	0	0	58	0
9600	36	56	0	7	52	0	0	48	0	0	44	0	0	40	0



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

Table 2 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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													
		≤ 8.7 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	514	385	432	479	259	351	443	134	271	408	9	191	372	0
2400	10.2	486	359	406	452	239	329	419	119	252	385	0	175	352	0
2800	11.9	458	333	379	426	218	306	394	103	233	363	0	160	331	0
3200	13.6	429	307	353	400	197	284	370	88	214	340	0	145	311	0
3600	15.3	401	280	327	373	176	261	346	73	195	318	0	129	290	0
4000	17	373	254	301	347	156	238	321	57	176	295	0	114	270	0
4400	18.7	344	228	274	320	135	216	297	42	157	273	0	99	249	0
4800	20.4	316	202	248	294	114	193	272	26	138	250	0	84	229	0
5200	22.1	287	176	222	268	94	171	248	11	120	228	0	68	208	0
5600	23.8	259	150	196	241	73	148	223	0	101	205	0	53	188	0
6000	25.5	231	124	169	215	52	126	199	0	82	183	0	38	167	0
6400	27.2	202	98	143	188	31	103	174	0	63	161	0	22	147	0
6800	28.9	174	72	117	162	11	80	150	0	44	138	0	7	126	0
7200	30.6	146	46	91	136	0	58	126	0	25	116	0	0	105	0
7600	32.3	117	20	64	109	0	35	101	0	6	93	0	0	85	0
8000	34	89	0	38	83	0	13	77	0	0	71	0	0	64	0
8400	35.7	61	0	12	56	0	0	52	0	0	48	0	0	44	0



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

Table 3 - 2.2.3:

200 MORTARLESS WALL (unchamfered blocks)

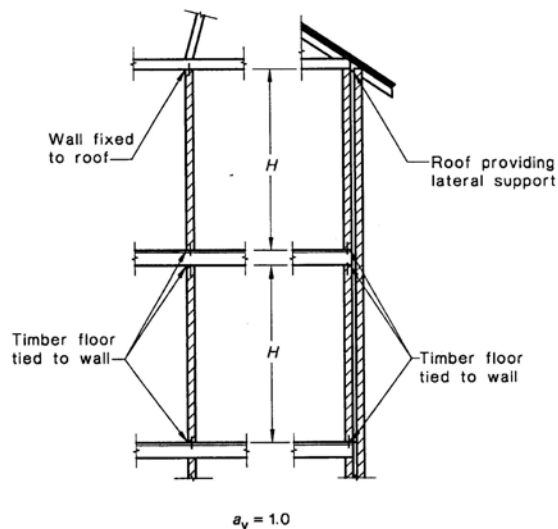
Block: 20MPa

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													
		≤ 8.7 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	489	362	321	456	241	331	422	121	254	388	0	177	354	0
2400	12	456	331	297	424	217	305	393	102	232	362	0	159	330	0
2800	14	423	300	273	393	192	278	364	84	210	335	0	141	306	0
3200	16	389	270	248	362	168	252	336	66	187	309	0	123	282	0
3600	18	356	239	224	331	144	225	307	48	165	282	0	105	258	0
4000	20	322	208	200	300	119	199	278	30	143	256	0	87	234	0
4400	22	289	178	176	269	95	172	249	12	121	229	0	69	209	0
4800	24	256	147	151	238	70	145	220	0	98	203	0	51	185	0
5200	26	222	116	127	207	46	119	192	0	76	176	0	33	161	0
5600	28	189	86	103	176	22	92	163	0	54	150	0	15	137	0
6000	30	156	55	79	145	0	66	134	0	32	123	0	0	113	0
6400	32	122	24	54	114	0	39	105	0	9	97	0	0	89	0
6800	34	89	0	30	83	0	13	77	0	0	71	0	0	64	0
7200	36	56	0	6	52	0	0	48	0	0	44	0	0	40	0



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

Table 4 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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													
		≤ 8.7 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	406	285	261	378	180	265	350	75	199	322	0	132	294	0
2400	18	356	239	224	331	144	225	307	48	165	282	0	105	258	0
2800	21	306	193	188	285	107	185	264	21	132	243	0	78	221	0
3200	24	256	147	151	238	70	145	220	0	98	203	0	51	185	0
3600	27	206	101	115	192	34	106	177	0	65	163	0	24	149	0
4000	30	156	55	79	145	0	66	134	0	32	123	0	0	113	0
4400	33	106	9	42	98	0	26	91	0	0	84	0	0	76	0
4800	36	56	0	6	52	0	0	48	0	0	44	0	0	40	0

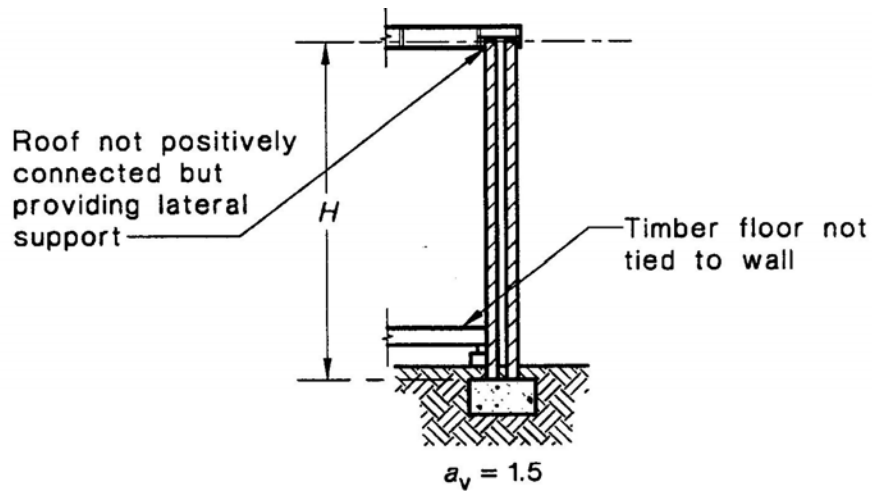
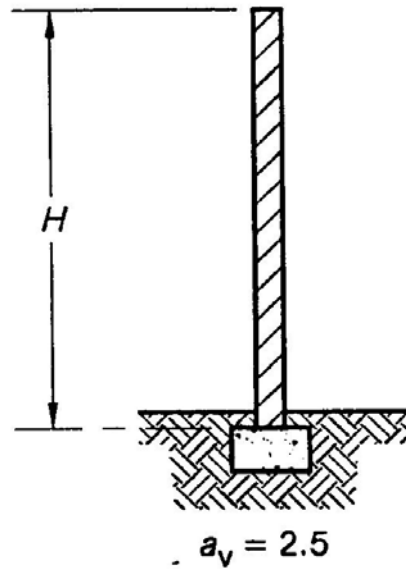


Table 5 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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													
		≤ 8.7 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	239	132	139	223	58	132	206	0	87	190	0	42	173	0
2400	30	156	55	79	145	0	66	134	0	32	123	0	0	113	0
2800	35	72	0	18	67	0	0	62	0	0	57	0	0	52	0



Free standing wall
No lateral support to top edge

Table 6 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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

$\leq 8.7\text{mm}$

20mm

40mm

60mm

80mm

$\geq 87\text{mm}$

2000

6.1

555

422

289

156

23

0

2400

7.3

535

404

274

145

16

0

2800

8.5

515

385

260

134

9

0

3200

9.7

494

366

245

123

2

0

3600

10.9

474

348

230

112

0

0

4000

12.1

454

329

215

101

0

0

4400

13.3

434

311

200

90

0

0

4800

14.5

413

292

186

79

0

0

5200

15.8

393

273

171

68

0

0

5600

17.0

373

255

156

57

0

0

6000

18.2

353

236

141

46

0

0

6400

19.4

333

218

127

36

0

0

6800

20.6

312

199

112

25

0

0

7200

21.8

292

180

97

14

0

0

7600

23.0

272

162

82

3

0

0

8000

24.2

252

143

67

0

0

0

8400

25.5

231

125

53

0

0

0

8800

26.7

211

106

38

0

0

0

9200

27.9

191

87

23

0

0

0

9600

29.1

171

69

8

0

0

0

10000

30.3

150

50

0

0

0

0

10400

31.5

130

32

0

0

0

0

10800

32.7

110

13

0

0

0

0

11200

33.9

90

0

0

0

0

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11600

35.2

70

0

0

0

0

0

12000

36.4

49

0

0

0

0

0

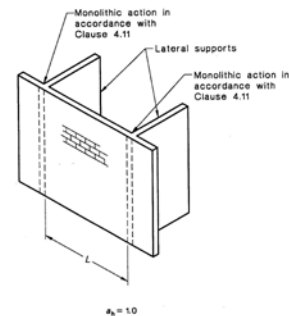
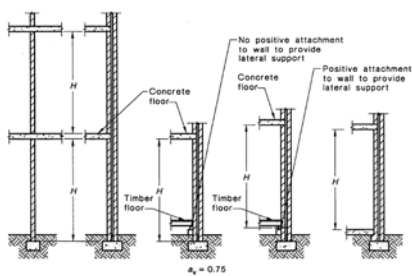


Table 7 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	6.5	548	416	284	153	21	0
2400	7.7	527	396	269	141	13	0
2800	9.0	505	377	253	129	6	0
3200	10.3	484	357	237	118	0	0
3600	11.6	462	337	221	106	0	0
4000	12.9	441	317	206	94	0	0
4400	14.2	419	297	190	83	0	0
4800	15.5	398	278	174	71	0	0
5200	16.8	376	258	158	59	0	0
5600	18.1	355	238	143	48	0	0
6000	19.4	333	218	127	36	0	0
6400	20.7	312	198	111	24	0	0
6800	21.9	290	179	95	12	0	0
7200	23.2	269	159	80	1	0	0
7600	24.5	247	139	64	0	0	0
8000	25.8	225	119	48	0	0	0
8400	27.1	204	99	33	0	0	0
8800	28.4	182	80	17	0	0	0
9200	29.7	161	60	1	0	0	0
9600	31.0	139	40	0	0	0	0
10000	32.3	118	20	0	0	0	0
10400	33.6	96	0	0	0	0	0
10800	34.8	75	0	0	0	0	0
11200	36.1	53	0	0	0	0	0

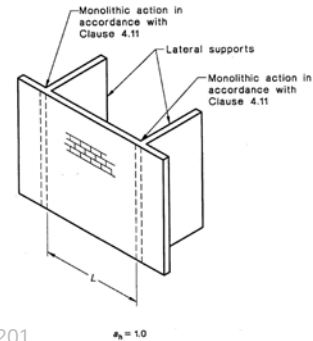
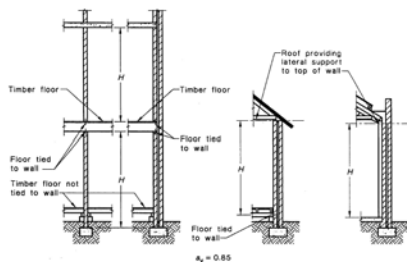


Table 8 - 2.2.3:

200 MORTARLESS WALL (unchamfered blocks)

Block: 20MPa

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	539	408	278	148	18	0
2400	8.4	516	386	261	135	9	0
2800	9.8	493	365	244	122	1	0
3200	11.2	469	343	227	110	0	0
3600	12.6	446	322	209	97	0	0
4000	14.0	423	300	192	84	0	0
4400	15.4	399	279	175	72	0	0
4800	16.8	376	257	158	59	0	0
5200	18.2	353	236	141	46	0	0
5600	19.6	329	214	124	34	0	0
6000	21.0	306	193	107	21	0	0
6400	22.4	282	172	90	8	0	0
6800	23.8	259	150	73	0	0	0
7200	25.2	236	129	56	0	0	0
7600	26.6	212	107	39	0	0	0
8000	28.0	189	86	22	0	0	0
8400	29.4	166	64	5	0	0	0
8800	30.8	142	43	0	0	0	0
9200	32.2	119	21	0	0	0	0
9600	33.6	96	0	0	0	0	0
10000	35.0	72	0	0	0	0	0
10400	36.4	49	0	0	0	0	0

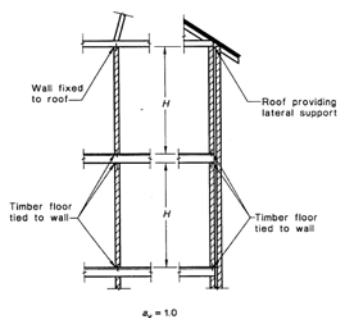
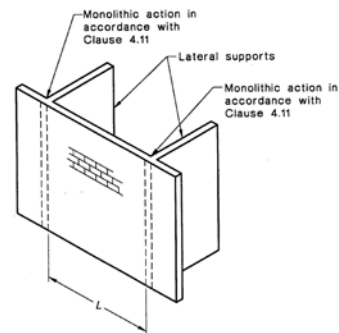
 $a_v = 1.0$  $a_h = 1.0$

Table 9 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	5.1	556	436	300	165	29	0
1600	6.9	542	410	279	149	19	0
2000	8.6	513	384	259	134	8	0
2400	10.3	484	357	238	118	0	0
2800	12.0	456	331	217	102	0	0
3200	13.7	427	305	196	87	0	0
3600	15.4	399	278	175	71	0	0
4000	17.1	370	252	154	56	0	0
4400	18.9	341	226	133	40	0	0
4800	20.6	313	200	112	25	0	0
5200	22.3	284	173	91	9	0	0
5600	24.0	256	147	70	0	0	0
6000	25.7	227	121	49	0	0	0
6400	27.4	198	94	28	0	0	0
6800	29.1	170	68	8	0	0	0
7200	30.9	141	42	0	0	0	0
7600	32.6	113	15	0	0	0	0
8000	34.3	84	0	0	0	0	0
8400	36.0	55	0	0	0	0	0

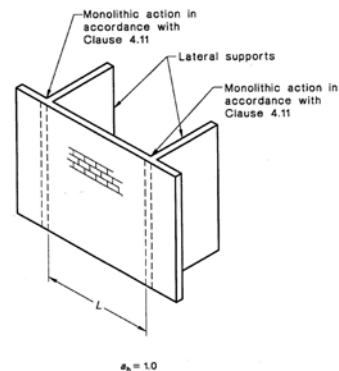
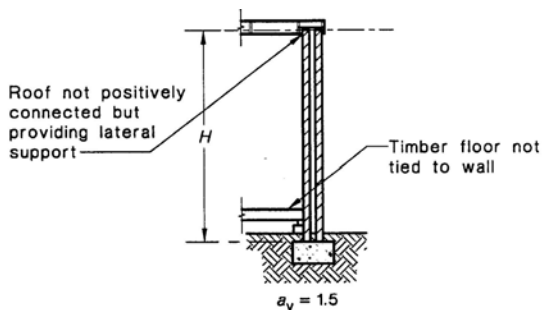


Table 10 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	6.6	545	413	282	151	20	0
1600	8.9	508	379	255	131	7	0
2000	11.1	471	345	228	111	0	0
2400	13.3	435	311	201	91	0	0
2800	15.5	398	277	174	71	0	0
3200	17.7	361	244	147	51	0	0
3600	19.9	324	210	120	31	0	0
4000	22.1	287	176	93	11	0	0
4400	24.3	250	142	66	0	0	0
4800	26.6	213	108	39	0	0	0
5200	28.8	176	74	12	0	0	0
5600	31.0	139	40	0	0	0	0
6000	33.2	102	6	0	0	0	0
6400	35.4	65	0	0	0	0	0

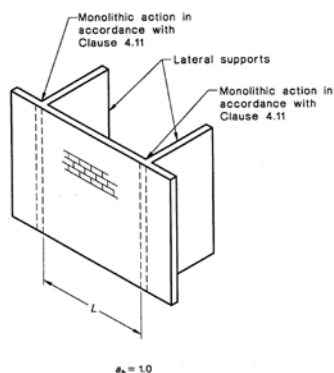
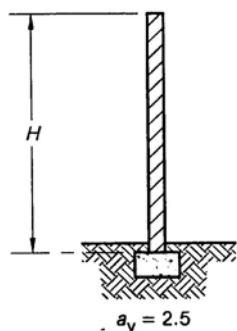


Table 11 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	9.6	496	368	246	124	2	0
2400	11.5	464	339	223	107	0	0
2800	13.4	432	309	199	90	0	0
3200	15.3	400	280	176	72	0	0
3600	17.3	368	250	153	55	0	0
4000	19.2	336	221	129	38	0	0
4400	21.1	304	192	106	20	0	0
4800	23.0	272	162	83	3	0	0
5200	24.9	240	133	59	0	0	0
5600	26.8	208	103	36	0	0	0
6000	28.8	176	74	12	0	0	0
6400	30.7	144	45	0	0	0	0
6800	32.6	112	15	0	0	0	0
7200	34.5	81	0	0	0	0	0
7600	36.4	49	0	0	0	0	0

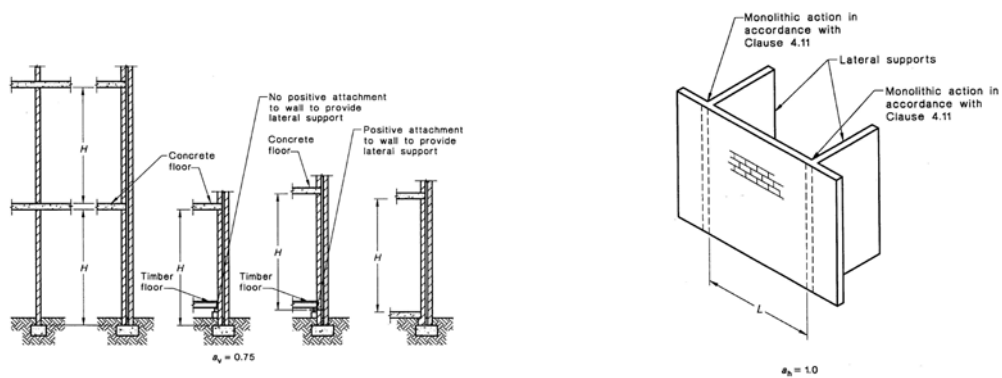


Table 12 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	10.2	486	359	239	119	0	0
2400	12.2	452	327	214	100	0	0
2800	14.3	418	296	189	82	0	0
3200	16.3	384	265	164	63	0	0
3600	18.4	350	233	139	45	0	0
4000	20.4	316	202	114	26	0	0
4400	22.4	282	171	89	8	0	0
4800	24.5	248	139	64	0	0	0
5200	26.5	214	108	40	0	0	0
5600	28.6	180	77	15	0	0	0
6000	30.6	145	46	0	0	0	0
6400	32.7	111	14	0	0	0	0
6800	34.7	77	0	0	0	0	0
7200	36.7	43	0	0	0	0	0

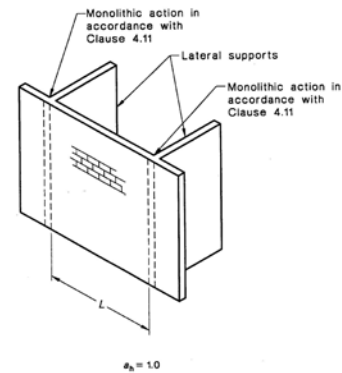
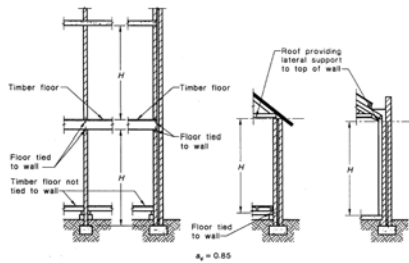


Table 13 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	11.1	471	345	228	111	0	0
2400	13.3	435	311	201	91	0	0
2800	15.5	398	277	174	71	0	0
3200	17.7	361	244	147	51	0	0
3600	19.9	324	210	120	31	0	0
4000	22.1	287	176	93	11	0	0
4400	24.3	250	142	66	0	0	0
4800	26.6	213	108	39	0	0	0
5200	28.8	176	74	12	0	0	0
5600	31.0	139	40	0	0	0	0
6000	33.2	102	6	0	0	0	0
6400	35.4	65	0	0	0	0	0

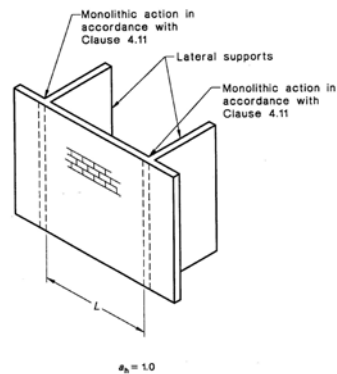
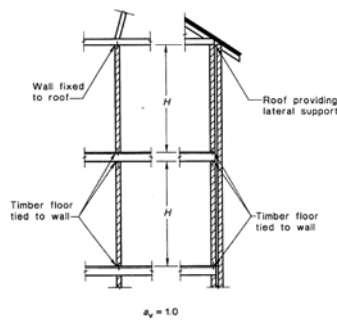


Table 14 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	8.1	520	390	264	137	11	0
1600	10.8	475	349	231	113	0	0
2000	13.6	430	307	198	88	0	0
2400	16.3	385	266	165	64	0	0
2800	19.0	340	224	132	39	0	0
3200	21.7	294	182	99	15	0	0
3600	24.4	249	141	66	0	0	0
4000	27.1	204	99	32	0	0	0
4400	29.8	159	58	0	0	0	0
4800	32.5	113	16	0	0	0	0
5200	35.2	68	0	0	0	0	0

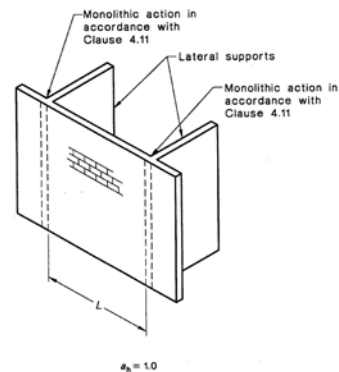
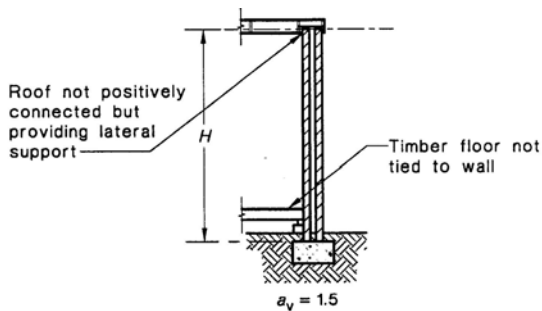


Table 15 - 2.2.3:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	10.5	481	354	235	116	0	0
1600	14.0	423	300	192	84	0	0
2000	17.5	364	247	150	53	0	0
2400	21.0	306	193	107	21	0	0
2800	24.5	247	139	64	0	0	0
3200	28.0	189	86	22	0	0	0
3600	31.5	131	32	0	0	0	0
4000	35.0	72	0	0	0	0	0

