

2.2.4 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, 25MPa Grout

Table 1 - 2.2.4:	20MPa blocks, 25MPa grout, $a_v = 0.75$, height governs
Table 2 - 2.2.4:	20MPa blocks, 25MPa grout, $a_v = 0.85$, height governs
Table 3 - 2.2.4:	20MPa blocks, 25MPa grout, $a_v = 1.00$, height governs
Table 4 - 2.2.4:	20MPa blocks, 25MPa grout, $a_v = 1.50$, height governs
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Table 14 - 2.2.4:	20MPa blocks, 25MPa grout, $a_v = 1.50$, $a_h = 2.5$, length governs
Table 15 - 2.2.4:	20MPa blocks, 25MPa grout, $a_v = 2.50$, $a_h = 2.5$, length governs

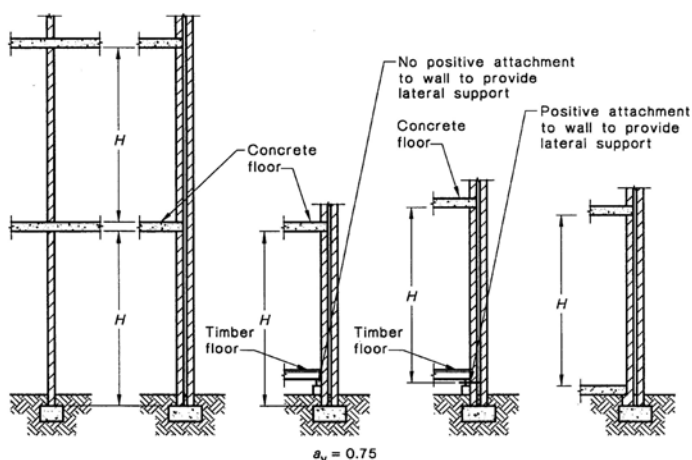
Table 1 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

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

Grout: 25MPa $a_v = 0.75$

		$k F_0$ - 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	527	389	439	489	254	352	450	119	265	411	0	178	373	0
2400	9	502	367	416	466	237	333	429	106	249	392	0	166	355	0
2800	10.5	477	344	393	443	219	313	408	94	233	373	0	153	338	0
3200	12	453	322	371	420	201	294	386	81	217	353	0	140	320	0
3600	13.5	428	299	348	396	184	274	365	68	201	334	0	128	303	0
4000	15	403	277	325	373	166	255	344	56	185	314	0	115	285	0
4400	16.5	378	254	302	350	149	236	323	43	169	295	0	103	267	0
4800	18	353	231	279	327	131	216	302	30	153	276	0	90	250	0
5200	19.5	328	209	257	304	113	197	280	18	137	256	0	77	232	0
5600	21	304	186	234	281	96	177	259	5	121	237	0	65	215	0
6000	22.5	279	164	211	258	78	158	238	0	105	218	0	52	197	0
6400	24	254	141	188	235	61	139	217	0	89	198	0	39	180	0
6800	25.5	229	119	165	212	43	119	196	0	73	179	0	27	162	0
7200	27	204	96	143	189	25	100	174	0	57	159	0	14	144	0
7600	28.5	179	74	120	166	8	80	153	0	41	140	0	2	127	0
8000	30	155	51	97	143	0	61	132	0	25	121	0	0	109	0
8400	31.5	130	28	74	120	0	42	111	0	9	101	0	0	92	0
8800	33	105	6	52	97	0	22	90	0	0	82	0	0	74	0
9200	34.5	80	0	29	74	0	3	68	0	0	62	0	0	57	0
9600	36	55	0	6	51	0	0	47	0	0	43	0	0	39	0



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

 $a_v = 0.75$

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Table 2 - 2.2.4:
200 MORTARLESS WALL (chamfered blocks)
Block: 20MPa Wall span: VERTICAL (reinforced vertically)
Grout: 25MPa $a_v = 0.85$

		$k F_0$ - 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	511	374	424	473	242	339	436	110	254	399	0	170	361	0
2400	10.2	482	349	398	447	222	317	412	96	236	377	0	156	341	0
2800	11.9	454	323	372	421	203	295	388	82	218	355	0	141	321	0
3200	13.6	426	298	346	395	183	273	364	67	200	333	0	127	301	0
3600	15.3	398	272	320	369	163	251	340	53	182	311	0	113	282	0
4000	17	370	247	295	343	143	229	316	39	164	289	0	98	262	0
4400	18.7	342	221	269	317	123	207	292	25	146	267	0	84	242	0
4800	20.4	314	195	243	291	103	185	268	10	127	245	0	70	222	0
5200	22.1	285	170	217	264	83	163	244	0	109	223	0	55	202	0
5600	23.8	257	144	191	238	63	141	220	0	91	201	0	41	182	0
6000	25.5	229	119	165	212	43	119	196	0	73	179	0	27	162	0
6400	27.2	201	93	140	186	23	97	172	0	55	157	0	13	142	0
6800	28.9	173	68	114	160	3	75	147	0	37	135	0	0	122	0
7200	30.6	145	42	88	134	0	53	123	0	19	113	0	0	102	0
7600	32.3	116	16	62	108	0	31	99	0	1	91	0	0	82	0
8000	34	88	0	36	82	0	9	75	0	0	69	0	0	62	0
8400	35.7	60	0	11	56	0	0	51	0	0	47	0	0	43	0

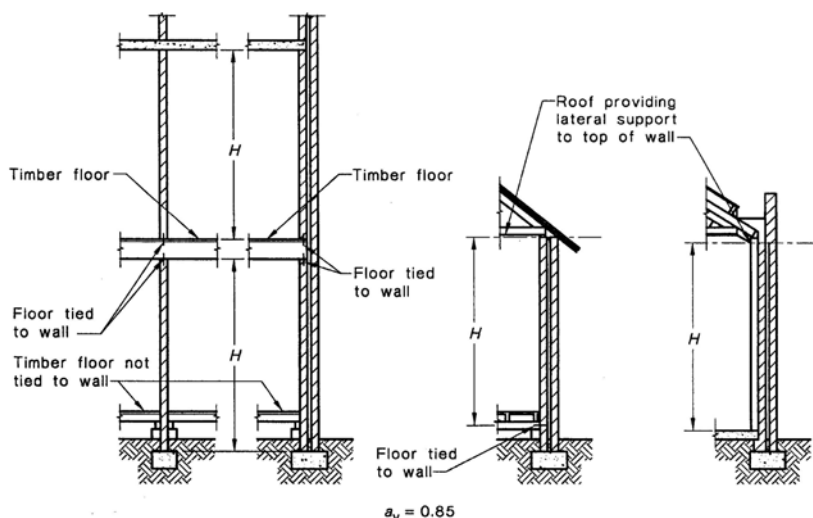

**Lateral support top and bottom
Partial rotational support one end
Fully braced construction**

Table 3 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

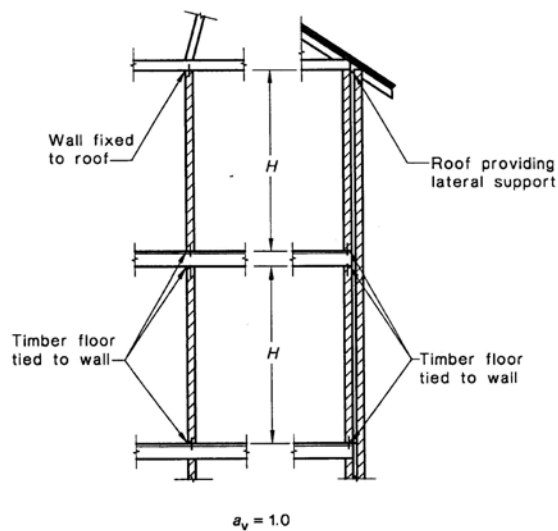
Block: 20MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 25MPa

$a_v = 1.00$

		$k F_0$ - 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	486	352	346	450	225	320	415	98	238	379	0	157	344	0
2400	12	453	322	320	420	201	294	386	81	217	353	0	140	320	0
2800	14	420	292	293	389	178	268	358	64	196	327	0	124	297	0
3200	16	386	262	267	358	154	242	330	47	174	302	0	107	273	0
3600	18	353	231	241	327	131	216	302	30	153	276	0	90	250	0
4000	20	320	201	215	297	108	190	273	14	132	250	0	73	226	0
4400	22	287	171	189	266	84	165	245	0	110	224	0	56	203	0
4800	24	254	141	162	235	61	139	217	0	89	198	0	39	180	0
5200	26	221	111	136	205	37	113	188	0	68	172	0	23	156	0
5600	28	188	81	110	174	14	87	160	0	46	146	0	6	133	0
6000	30	155	51	84	143	0	61	132	0	25	121	0	0	109	0
6400	32	121	21	58	113	0	35	104	0	4	95	0	0	86	0
6800	34	88	0	31	82	0	9	75	0	0	69	0	0	62	0
7200	36	55	0	5	51	0	0	47	0	0	43	0	0	39	0



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

Table 4 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 25MPa

$a_v = 1.50$

		$k F_0$ - 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	403	277	280	373	166	255	344	56	185	314	0	115	285	0
2400	18	353	231	241	327	131	216	302	30	153	276	0	90	250	0
2800	21	304	186	202	281	96	177	259	5	121	237	0	65	215	0
3200	24	254	141	162	235	61	139	217	0	89	198	0	39	180	0
3600	27	204	96	123	189	25	100	174	0	57	159	0	14	144	0
4000	30	155	51	84	143	0	61	132	0	25	121	0	0	109	0
4400	33	105	6	44	97	0	22	90	0	0	82	0	0	74	0
4800	36	55	0	5	51	0	0	47	0	0	43	0	0	39	0

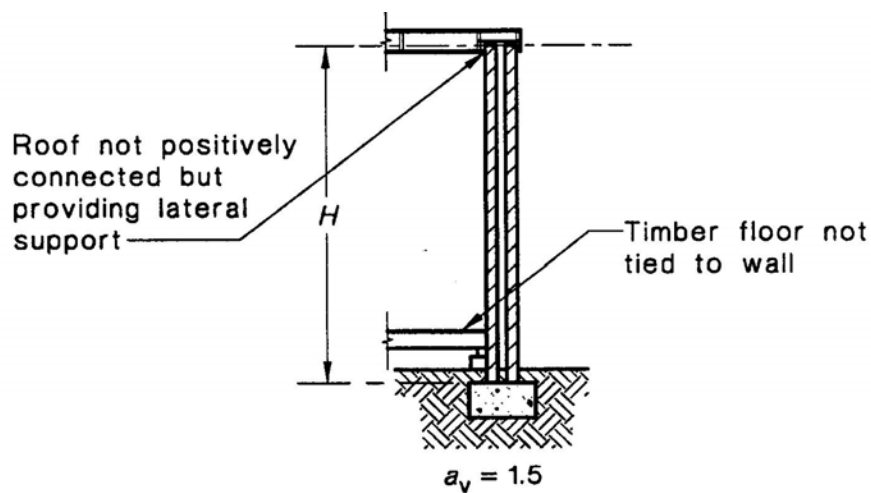


Table 5 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

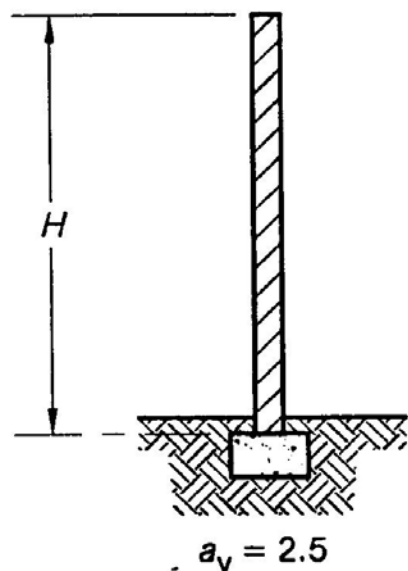
Block: 20MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 25MPa

$a_v = 2.50$

		$k F_0$ - 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	237	126	149	220	49	126	203	0	78	185	0	31	168	0
2400	30	155	51	84	143	0	61	132	0	25	121	0	0	109	0
2800	35	72	0	18	67	0	0	61	0	0	56	0	0	51	0



Free standing wall
No lateral support to top edge

Table 6 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)							
Block: 20MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 25MPa		$a_v = 0.75$		$a_h = 1.0$			
		$k F_0$ - 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	551	411	271	131	0	0
2400	7.3	531	393	257	121	0	0
2800	8.5	511	375	243	110	0	0
3200	9.7	491	356	228	100	0	0
3600	10.9	471	338	214	90	0	0
4000	12.1	451	320	200	80	0	0
4400	13.3	431	302	186	70	0	0
4800	14.5	410	283	171	59	0	0
5200	15.8	390	265	157	49	0	0
5600	17.0	370	247	143	39	0	0
6000	18.2	350	229	129	29	0	0
6400	19.4	330	210	115	19	0	0
6800	20.6	310	192	100	8	0	0
7200	21.8	290	174	86	0	0	0
7600	23.0	270	156	72	0	0	0
8000	24.2	250	137	58	0	0	0
8400	25.5	230	119	43	0	0	0
8800	26.7	210	101	29	0	0	0
9200	27.9	190	83	15	0	0	0
9600	29.1	169	65	1	0	0	0
10000	30.3	149	46	0	0	0	0
10400	31.5	129	28	0	0	0	0
10800	32.7	109	10	0	0	0	0
11200	33.9	89	0	0	0	0	0
11600	35.2	69	0	0	0	0	0
12000	36.4	49	0	0	0	0	0

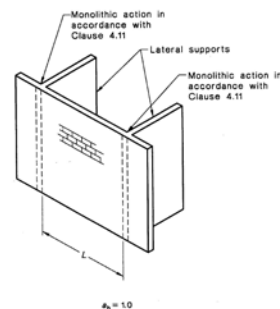
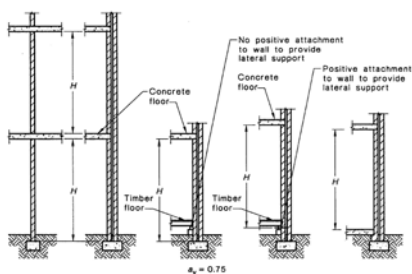


Table 7 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 25MPa

$a_v = 0.85$

$a_h = 1.0$

		$k F_0$ - 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	544	405	266	128	0	0
2400	7.7	523	386	251	117	0	0
2800	9.0	502	366	236	106	0	0
3200	10.3	480	347	221	95	0	0
3600	11.6	459	327	206	84	0	0
4000	12.9	438	308	191	73	0	0
4400	14.2	416	289	176	62	0	0
4800	15.5	395	269	160	52	0	0
5200	16.8	373	250	145	41	0	0
5600	18.1	352	230	130	30	0	0
6000	19.4	331	211	115	19	0	0
6400	20.7	309	192	100	8	0	0
6800	21.9	288	172	85	0	0	0
7200	23.2	267	153	70	0	0	0
7600	24.5	245	133	54	0	0	0
8000	25.8	224	114	39	0	0	0
8400	27.1	202	95	24	0	0	0
8800	28.4	181	75	9	0	0	0
9200	29.7	160	56	0	0	0	0
9600	31.0	138	36	0	0	0	0
10000	32.3	117	17	0	0	0	0
10400	33.6	96	0	0	0	0	0
10800	34.8	74	0	0	0	0	0
11200	36.1	53	0	0	0	0	0

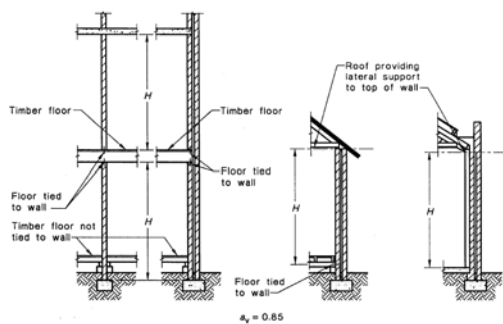
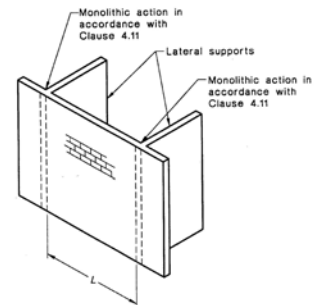

 $a_v = 0.85$

 $a_h = 1.0$

Table 8 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 25MPa

$a_v = 1.00$

$a_h = 1.0$

		$k F_0$ - 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	535	397	260	123	0	0
2400	8.4	512	376	244	111	0	0
2800	9.8	489	355	227	99	0	0
3200	11.2	466	334	211	88	0	0
3600	12.6	443	313	194	76	0	0
4000	14.0	420	292	178	64	0	0
4400	15.4	396	271	161	52	0	0
4800	16.8	373	250	145	41	0	0
5200	18.2	350	228	129	29	0	0
5600	19.6	327	207	112	17	0	0
6000	21.0	304	186	96	5	0	0
6400	22.4	280	165	79	0	0	0
6800	23.8	257	144	63	0	0	0
7200	25.2	234	123	47	0	0	0
7600	26.6	211	102	30	0	0	0
8000	28.0	188	81	14	0	0	0
8400	29.4	164	60	0	0	0	0
8800	30.8	141	39	0	0	0	0
9200	32.2	118	18	0	0	0	0
9600	33.6	95	0	0	0	0	0
10000	35.0	72	0	0	0	0	0
10400	36.4	49	0	0	0	0	0

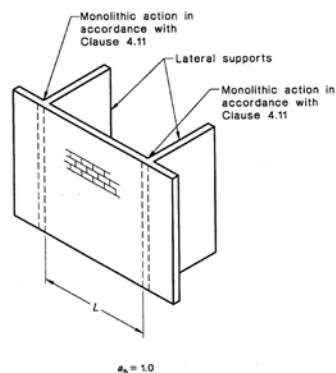
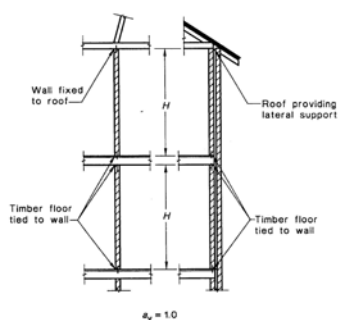


Table 9 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 25MPa

$a_v = 1.50$

$a_h = 1.0$

		$k F_0$ - 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	5.1	552	425	282	139	0	0
1600	6.9	538	399	262	124	0	0
2000	8.6	509	373	242	110	0	0
2400	10.3	481	347	221	95	0	0
2800	12.0	453	322	201	81	0	0
3200	13.7	424	296	181	66	0	0
3600	15.4	396	270	161	52	0	0
4000	17.1	367	244	141	38	0	0
4400	18.9	339	219	121	23	0	0
4800	20.6	311	193	101	9	0	0
5200	22.3	282	167	81	0	0	0
5600	24.0	254	141	61	0	0	0
6000	25.7	225	115	40	0	0	0
6400	27.4	197	90	20	0	0	0
6800	29.1	169	64	0	0	0	0
7200	30.9	140	38	0	0	0	0
7600	32.6	112	12	0	0	0	0
8000	34.3	83	0	0	0	0	0
8400	36.0	55	0	0	0	0	0

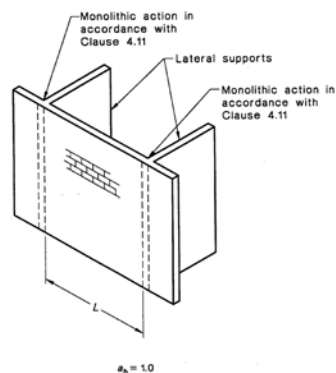
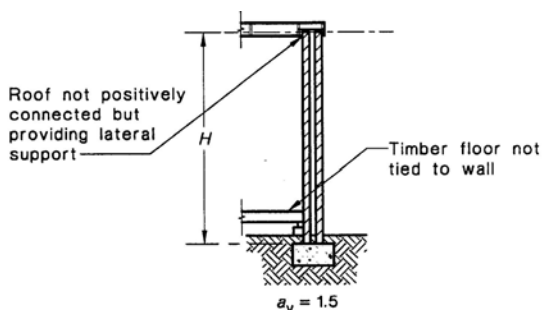


Table 10 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 25MPa

$a_v = 2.50$

$a_h = 1.0$

		$k F_0$ - 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	541	402	264	126	0	0
1600	8.9	505	369	238	107	0	0
2000	11.1	468	336	212	89	0	0
2400	13.3	431	302	186	70	0	0
2800	15.5	395	269	160	52	0	0
3200	17.7	358	236	134	33	0	0
3600	19.9	321	203	108	14	0	0
4000	22.1	285	169	82	0	0	0
4400	24.3	248	136	57	0	0	0
4800	26.6	211	103	31	0	0	0
5200	28.8	175	69	5	0	0	0
5600	31.0	138	36	0	0	0	0
6000	33.2	102	3	0	0	0	0
6400	35.4	65	0	0	0	0	0

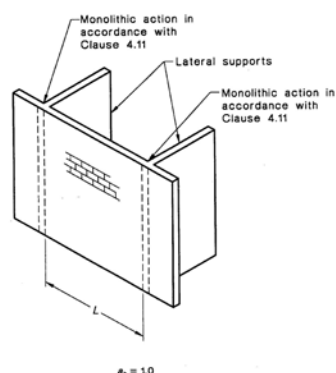
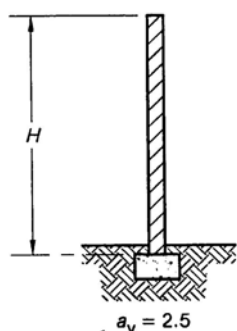


Table 11 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 25MPa

$a_v = 0.75$

$a_h = 2.5$

		$k F_0$ - 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	493	358	230	101	0	0
2400	11.5	461	329	207	85	0	0
2800	13.4	429	300	185	69	0	0
3200	15.3	397	272	162	53	0	0
3600	17.3	366	243	140	37	0	0
4000	19.2	334	214	117	21	0	0
4400	21.1	302	185	95	4	0	0
4800	23.0	270	156	72	0	0	0
5200	24.9	239	127	50	0	0	0
5600	26.8	207	99	27	0	0	0
6000	28.8	175	70	5	0	0	0
6400	30.7	143	41	0	0	0	0
6800	32.6	112	12	0	0	0	0
7200	34.5	80	0	0	0	0	0
7600	36.4	48	0	0	0	0	0

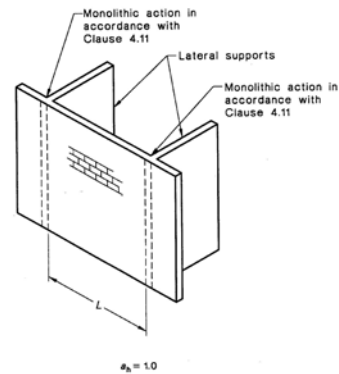
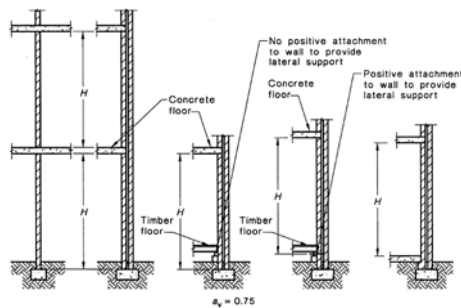


Table 12 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)							
Block: 20MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 25MPa		$a_v = 0.85$		$a_h = 2.5$			
		$k F_0$ - 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	482	349	222	96	0	0
2400	12.2	449	318	198	79	0	0
2800	14.3	415	287	175	62	0	0
3200	16.3	381	257	151	45	0	0
3600	18.4	347	226	127	27	0	0
4000	20.4	313	195	103	10	0	0
4400	22.4	280	165	79	0	0	0
4800	24.5	246	134	55	0	0	0
5200	26.5	212	103	31	0	0	0
5600	28.6	178	72	7	0	0	0
6000	30.6	144	42	0	0	0	0
6400	32.7	111	11	0	0	0	0
6800	34.7	77	0	0	0	0	0
7200	36.7	43	0	0	0	0	0

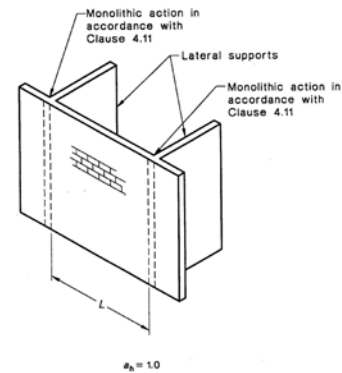
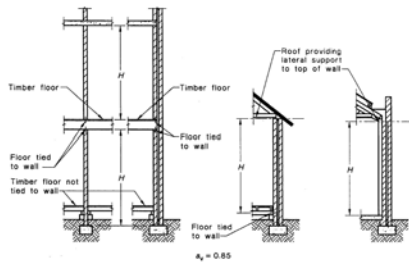


Table 13 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)

Block: 20MPa

Wall Span: HORIZONTAL (reinforced vertically & horizontally)

Grout: 25MPa

$a_v = 1.00$

$a_h = 2.5$

		$k F_0$ - 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	468	336	212	89	0	0
2400	13.3	431	302	186	70	0	0
2800	15.5	395	269	160	52	0	0
3200	17.7	358	236	134	33	0	0
3600	19.9	321	203	108	14	0	0
4000	22.1	285	169	82	0	0	0
4400	24.3	248	136	57	0	0	0
4800	26.6	211	103	31	0	0	0
5200	28.8	175	69	5	0	0	0
5600	31.0	138	36	0	0	0	0
6000	33.2	102	3	0	0	0	0
6400	35.4	65	0	0	0	0	0

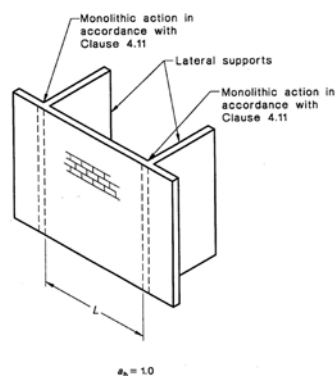
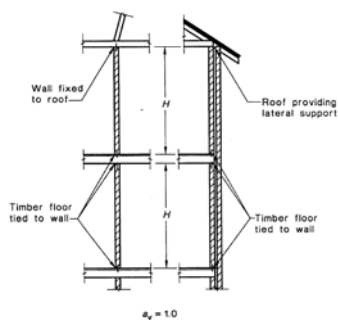


Table 14 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)							
Block: 20MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 25MPa		$a_v = 1.50$		$a_h = 2.5$			
		$k F_0$ - 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	517	380	247	113	0	0
1600	10.8	472	339	215	91	0	0
2000	13.6	427	298	183	68	0	0
2400	16.3	382	258	151	45	0	0
2800	19.0	337	217	120	22	0	0
3200	21.7	292	176	88	0	0	0
3600	24.4	247	135	56	0	0	0
4000	27.1	202	94	24	0	0	0
4400	29.8	158	54	0	0	0	0
4800	32.5	113	13	0	0	0	0
5200	35.2	68	0	0	0	0	0

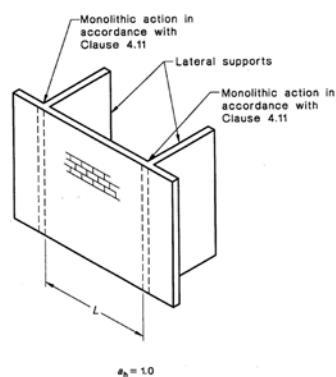
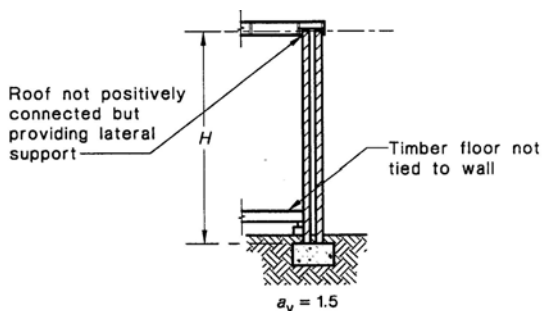


Table 15 - 2.2.4:

200 MORTARLESS WALL (chamfered blocks)							
Block: 20MPa		Wall Span: HORIZONTAL (reinforced vertically & horizontally)					
Grout: 25MPa		$a_v = 2.50$		$a_h = 2.5$			
		$k F_0$ - 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	477	344	219	94	0	0
1600	14.0	420	292	178	64	0	0
2000	17.5	362	239	137	35	0	0
2400	21.0	304	186	96	5	0	0
2800	24.5	246	134	55	0	0	0
3200	28.0	188	81	14	0	0	0
3600	31.5	130	28	0	0	0	0
4000	35.0	72	0	0	0	0	0

