

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.

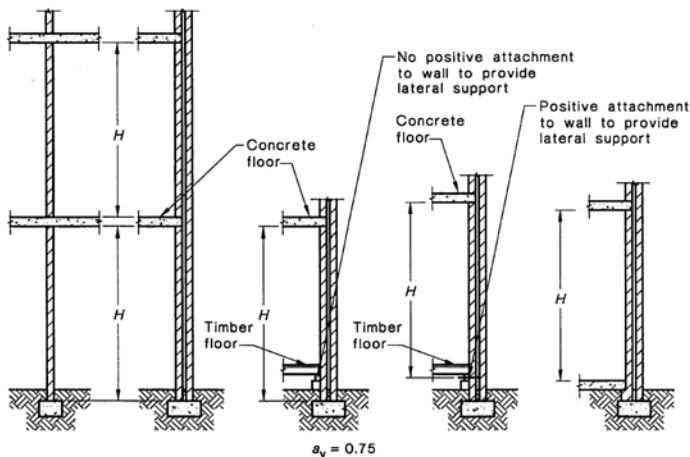
20MPa Blocks, 25MPa Grout

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Table 1 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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													
		≤ 8.7 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	572	431	482	533	293	393	493	154	304	454	16	215	414	0
2400	9	545	406	457	508	273	371	470	140	286	432	6	201	395	0
2800	10.5	518	382	432	482	253	350	447	125	268	411	0	186	375	0
3200	12	491	357	407	457	234	328	423	110	250	390	0	171	356	0
3600	13.5	464	332	382	432	214	307	400	96	232	368	0	157	336	0
4000	15	437	307	357	407	194	286	377	81	214	347	0	142	317	0
4400	16.5	410	282	332	382	174	264	354	67	196	325	0	128	297	0
4800	18	383	258	307	357	155	243	330	52	178	304	0	113	278	0
5200	19.5	356	233	282	332	135	221	307	37	160	283	0	99	258	0
5600	21	329	208	257	307	115	200	284	23	142	261	0	84	239	0
6000	22.5	302	183	232	282	96	178	261	8	124	240	0	70	219	0
6400	24	276	158	207	257	76	157	238	0	106	219	0	55	200	0
6800	25.5	249	134	183	231	56	135	214	0	88	197	0	41	180	0
7200	27	222	109	158	206	36	114	191	0	70	176	0	26	160	0
7600	28.5	195	84	133	181	17	92	168	0	52	154	0	12	141	0
8000	30	168	59	108	156	0	71	145	0	34	133	0	0	121	0
8400	31.5	141	34	83	131	0	49	121	0	16	112	0	0	102	0
8800	33	114	10	58	106	0	28	98	0	0	90	0	0	82	0
9200	34.5	87	0	33	81	0	6	75	0	0	69	0	0	63	0
9600	36	60	0	8	56	0	0	52	0	0	48	0	0	43	0



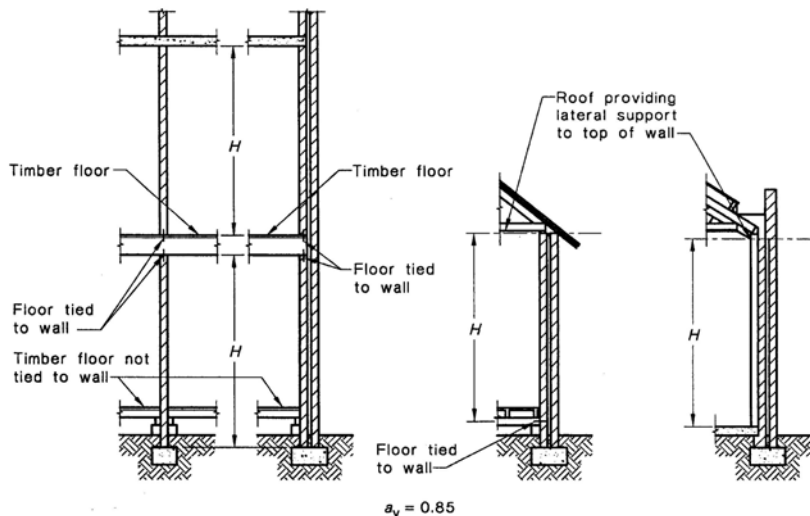
Lateral support top and bottom
Partial rotational restraint top and bottom
Fully braced construction

 $a_v = 0.75$

June 2015

Table 2 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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													
		≤ 8.7 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	554	415	465	516	279	379	478	145	292	439	9	205	401	0
2400	10.2	524	386	437	487	257	354	451	128	272	415	0	189	379	0
2800	11.9	493	358	409	459	235	330	425	111	251	391	0	172	357	0
3200	13.6	462	330	380	431	212	306	399	95	231	367	0	156	335	0
3600	15.3	432	302	352	402	190	281	372	78	210	343	0	139	313	0
4000	17	401	274	324	374	168	257	346	62	190	318	0	123	291	0
4400	18.7	371	246	296	345	145	233	320	45	170	294	0	107	268	0
4800	20.4	340	218	267	317	123	208	293	28	149	270	0	90	246	0
5200	22.1	310	190	239	288	101	184	267	12	129	246	0	74	224	0
5600	23.8	279	162	211	260	78	160	241	0	108	221	0	57	202	0
6000	25.5	249	134	183	231	56	135	214	0	88	197	0	41	180	0
6400	27.2	218	105	154	203	34	111	188	0	68	173	0	24	158	0
6800	28.9	187	77	126	175	11	87	162	0	47	149	0	8	136	0
7200	30.6	157	49	98	146	0	62	135	0	27	124	0	0	114	0
7600	32.3	126	21	69	118	0	38	109	0	6	100	0	0	92	0
8000	34	96	0	41	89	0	14	83	0	0	76	0	0	69	0
8400	35.7	65	0	13	61	0	0	56	0	0	52	0	0	47	0



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

Table 4 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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													
		≤ 8.7 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	391	274	284	364	173	255	337	72	191	310	0	127	283	0
2400	18	342	230	244	319	138	217	295	46	159	272	0	101	248	0
2800	21	294	186	204	274	103	178	254	20	127	233	0	75	213	0
3200	24	246	141	165	229	68	140	212	0	95	195	0	49	178	0
3600	27	198	97	125	184	33	102	171	0	62	157	0	23	143	0
4000	30	150	53	86	139	0	63	129	0	30	119	0	0	108	0
4400	33	102	9	46	95	0	25	88	0	0	81	0	0	74	0
4800	36	53	0	6	50	0	0	46	0	0	42	0	0	39	0

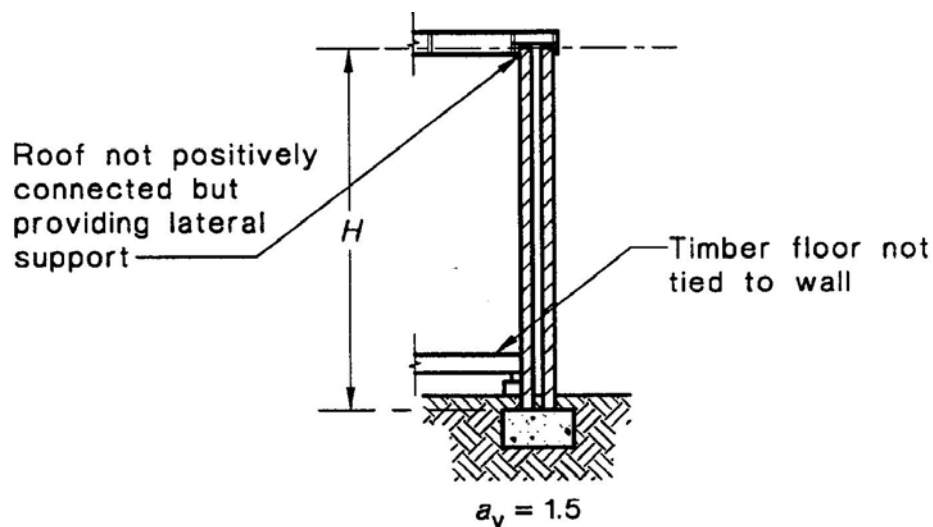


Table 5 - 2.2.4:

200 MORTARLESS WALL (unchamfered blocks)

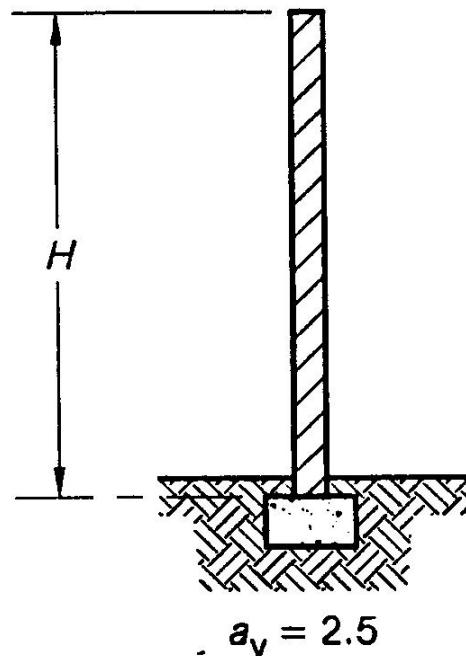
Block: 20MPa

Wall span: VERTICAL (reinforced vertically)

Grout: 25MPa

$a_v = 2.50$

H (mm)	S _r	k F ₀ - MAXIMUM DESIGN LOAD IN COMPRESSION (kN/m)													
		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	258	142	152	240	63	142	222	0	94	204	0	46	187	0
2400	30	168	59	86	156	0	71	145	0	34	133	0	0	121	0
2800	35	78	0	19	73	0	0	67	0	0	62	0	0	56	0



Free standing wall
No lateral support to top edge

Table 6 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	6.1	598	455	312	168	25	0
2400	7.3	576	435	296	157	17	0
2800	8.5	554	415	280	145	10	0
3200	9.7	533	395	264	133	2	0
3600	10.9	511	375	248	121	0	0
4000	12.1	489	355	232	109	0	0
4400	13.3	467	335	216	97	0	0
4800	14.5	445	315	200	86	0	0
5200	15.8	424	295	184	74	0	0
5600	17.0	402	274	168	62	0	0
6000	18.2	380	254	152	50	0	0
6400	19.4	358	234	136	38	0	0
6800	20.6	336	214	120	26	0	0
7200	21.8	315	194	104	15	0	0
7600	23.0	293	174	88	3	0	0
8000	24.2	271	154	73	0	0	0
8400	25.5	249	134	57	0	0	0
8800	26.7	227	114	41	0	0	0
9200	27.9	206	94	25	0	0	0
9600	29.1	184	74	9	0	0	0
10000	30.3	162	54	0	0	0	0
10400	31.5	140	34	0	0	0	0
10800	32.7	119	14	0	0	0	0
11200	33.9	97	0	0	0	0	0
11600	35.2	75	0	0	0	0	0
12000	36.4	53	0	0	0	0	0

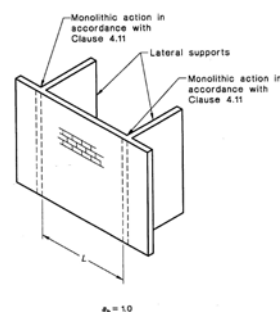
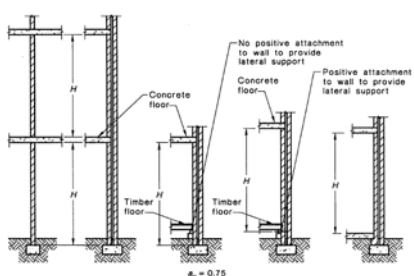


Table 7 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	6.5	591	448	306	165	23	0
2400	7.7	568	427	289	152	14	0
2800	9.0	544	406	272	139	6	0
3200	10.3	521	384	256	127	0	0
3600	11.6	498	363	239	114	0	0
4000	12.9	475	342	222	102	0	0
4400	14.2	452	320	205	89	0	0
4800	15.5	428	299	188	76	0	0
5200	16.8	405	278	171	64	0	0
5600	18.1	382	256	154	51	0	0
6000	19.4	359	235	137	39	0	0
6400	20.7	336	214	120	26	0	0
6800	21.9	313	192	103	13	0	0
7200	23.2	289	171	86	1	0	0
7600	24.5	266	150	69	0	0	0
8000	25.8	243	128	52	0	0	0
8400	27.1	220	107	35	0	0	0
8800	28.4	197	86	18	0	0	0
9200	29.7	173	64	1	0	0	0
9600	31.0	150	43	0	0	0	0
10000	32.3	127	22	0	0	0	0
10400	33.6	104	0	0	0	0	0
10800	34.8	81	0	0	0	0	0
11200	36.1	57	0	0	0	0	0

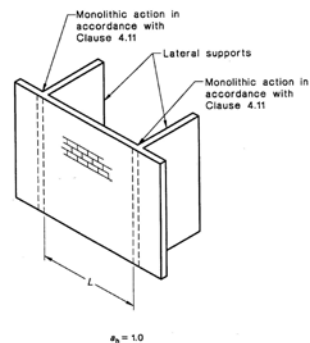
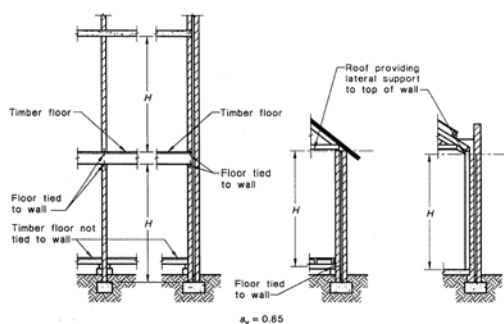


Table 8 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	7.0	581	439	299	159	19	0
2400	8.4	556	416	281	146	10	0
2800	9.8	531	393	262	132	1	0
3200	11.2	506	370	244	118	0	0
3600	12.6	480	347	226	105	0	0
4000	14.0	455	324	207	91	0	0
4400	15.4	430	301	189	77	0	0
4800	16.8	405	277	170	64	0	0
5200	18.2	380	254	152	50	0	0
5600	19.6	355	231	134	36	0	0
6000	21.0	329	208	115	23	0	0
6400	22.4	304	185	97	9	0	0
6800	23.8	279	162	78	0	0	0
7200	25.2	254	139	60	0	0	0
7600	26.6	229	115	42	0	0	0
8000	28.0	204	92	23	0	0	0
8400	29.4	179	69	5	0	0	0
8800	30.8	153	46	0	0	0	0
9200	32.2	128	23	0	0	0	0
9600	33.6	103	0	0	0	0	0
10000	35.0	78	0	0	0	0	0
10400	36.4	53	0	0	0	0	0

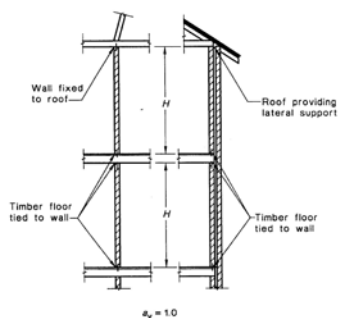
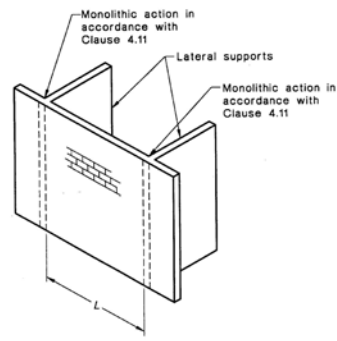

 $a_v = 1.0$

 $a_h = 1.0$

Table 9 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	5.1	599	470	324	177	31	0
1600	6.9	584	442	301	161	20	0
2000	8.6	553	413	279	144	9	0
2400	10.3	522	385	256	127	0	0
2800	12.0	491	357	233	110	0	0
3200	13.7	460	328	211	94	0	0
3600	15.4	430	300	188	77	0	0
4000	17.1	399	272	166	60	0	0
4400	18.9	368	243	143	43	0	0
4800	20.6	337	215	121	27	0	0
5200	22.3	306	187	98	10	0	0
5600	24.0	275	158	76	0	0	0
6000	25.7	245	130	53	0	0	0
6400	27.4	214	102	31	0	0	0
6800	29.1	183	73	8	0	0	0
7200	30.9	152	45	0	0	0	0
7600	32.6	121	17	0	0	0	0
8000	34.3	91	0	0	0	0	0
8400	36.0	60	0	0	0	0	0

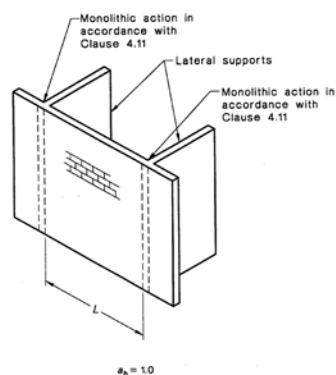
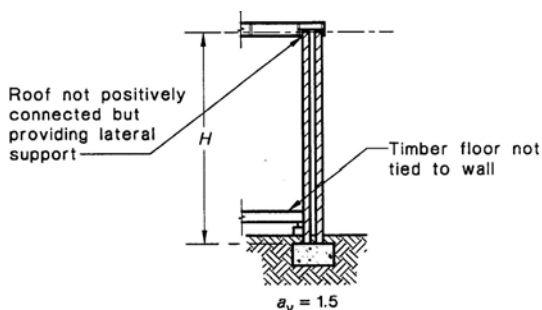


Table 10 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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)					
$\sqrt{HxL}$ (mm)	S_r	Eccentricity e_1					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	6.6	587	445	304	163	21	0
1600	8.9	548	409	275	141	7	0
2000	11.1	508	372	246	120	0	0
2400	13.3	468	336	217	98	0	0
2800	15.5	428	299	188	76	0	0
3200	17.7	389	262	158	55	0	0
3600	19.9	349	226	129	33	0	0
4000	22.1	309	189	100	12	0	0
4400	24.3	269	153	71	0	0	0
4800	26.6	229	116	42	0	0	0
5200	28.8	190	79	13	0	0	0
5600	31.0	150	43	0	0	0	0
6000	33.2	110	6	0	0	0	0
6400	35.4	70	0	0	0	0	0

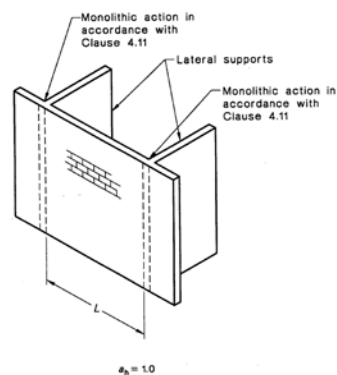
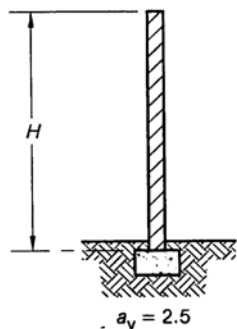


Table 11 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	9.6	535	397	265	134	3	0
2400	11.5	500	365	240	115	0	0
2800	13.4	466	333	215	97	0	0
3200	15.3	431	302	190	78	0	0
3600	17.3	397	270	164	59	0	0
4000	19.2	362	238	139	40	0	0
4400	21.1	328	206	114	22	0	0
4800	23.0	293	175	89	3	0	0
5200	24.9	259	143	64	0	0	0
5600	26.8	225	111	39	0	0	0
6000	28.8	190	80	13	0	0	0
6400	30.7	156	48	0	0	0	0
6800	32.6	121	16	0	0	0	0
7200	34.5	87	0	0	0	0	0
7600	36.4	52	0	0	0	0	0

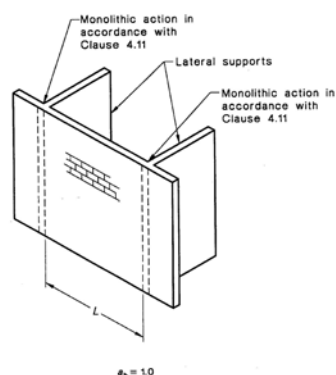
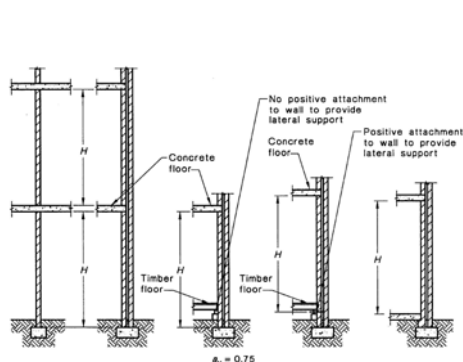


Table 12 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	10.2	523	386	257	128	0	0
2400	12.2	487	353	230	108	0	0
2800	14.3	450	319	203	88	0	0
3200	16.3	413	285	177	68	0	0
3600	18.4	377	251	150	48	0	0
4000	20.4	340	218	123	28	0	0
4400	22.4	303	184	96	9	0	0
4800	24.5	267	150	69	0	0	0
5200	26.5	230	117	43	0	0	0
5600	28.6	193	83	16	0	0	0
6000	30.6	157	49	0	0	0	0
6400	32.7	120	15	0	0	0	0
6800	34.7	83	0	0	0	0	0
7200	36.7	47	0	0	0	0	0

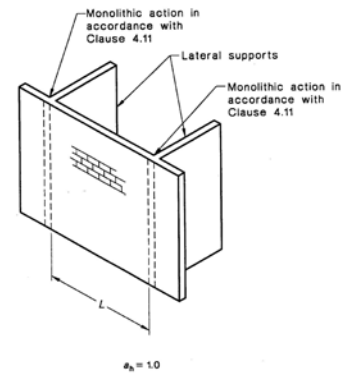
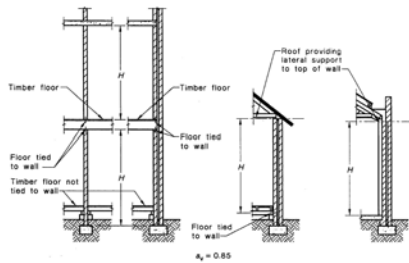


Table 13 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
2000	11.1	508	372	246	120	0	0
2400	13.3	468	336	217	98	0	0
2800	15.5	428	299	188	76	0	0
3200	17.7	389	262	158	55	0	0
3600	19.9	349	226	129	33	0	0
4000	22.1	309	189	100	12	0	0
4400	24.3	269	153	71	0	0	0
4800	26.6	229	116	42	0	0	0
5200	28.8	190	79	13	0	0	0
5600	31.0	150	43	0	0	0	0
6000	33.2	110	6	0	0	0	0
6400	35.4	70	0	0	0	0	0

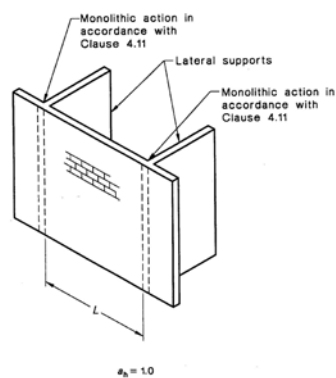
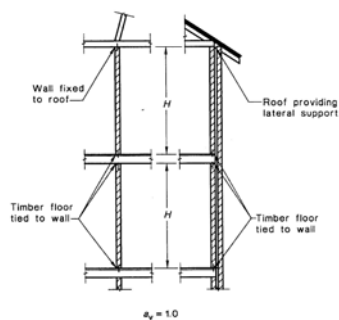


Table 14 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	8.1	561	421	284	148	12	0
1600	10.8	512	376	249	122	0	0
2000	13.6	463	331	213	95	0	0
2400	16.3	415	286	177	69	0	0
2800	19.0	366	241	142	42	0	0
3200	21.7	317	197	106	16	0	0
3600	24.4	268	152	71	0	0	0
4000	27.1	220	107	35	0	0	0
4400	29.8	171	62	0	0	0	0
4800	32.5	122	17	0	0	0	0
5200	35.2	73	0	0	0	0	0

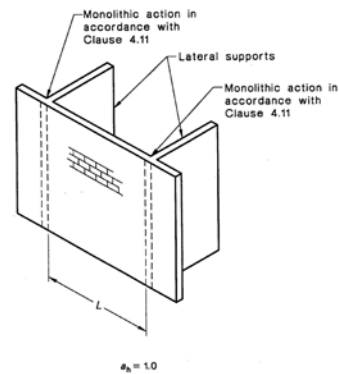
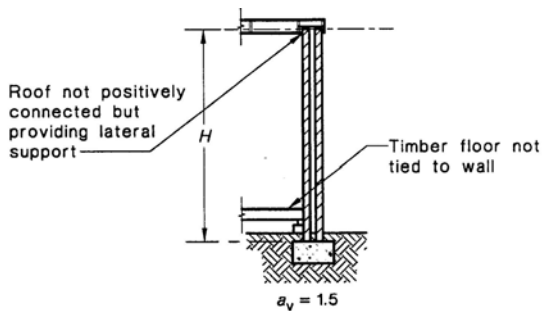


Table 15 - 2.2.4:

200 MORTARLESS WALL (unchamfered 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					
		$\leq 8.7\text{mm}$	20mm	40mm	60mm	80mm	$\geq 87\text{mm}$
1200	10.5	518	382	226	112	0	0
1600	14.0	455	289	185	81	0	0
2000	17.5	392	237	144	51	0	0
2400	21.0	329	186	103	20	0	0
2800	24.5	267	134	62	0	0	0
3200	28.0	204	82	21	0	0	0
3600	31.5	141	31	0	0	0	0
4000	35.0	78	0	0	0	0	0

