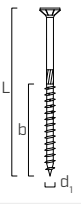
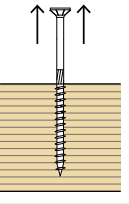
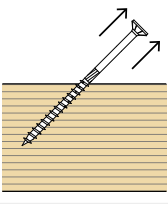
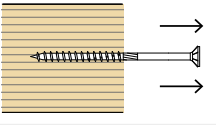


THREAD WITHDRAWAL (W) | WOOD

geometry				thread withdrawal $\alpha = 90^\circ$				thread withdrawal $\alpha = 45^\circ$				thread withdrawal $\alpha = 0^\circ$			
															
d_1	L		b	G				G				G			
[mm] [in]	[mm]	[in]	[in]	0.35 [lbf]	0.42 [lbf]	0.49 [lbf]	0.55 [lbf]	0.35 [lbf]	0.42 [lbf]	0.49 [lbf]	0.55 [lbf]	0.35 [lbf]	0.42 [lbf]	0.49 [lbf]	0.55 [lbf]
3,5 0.14	40	1 9/16 ⁽¹⁾	11/16	49	57	63	69	45	51	58	63	15	17	19	21
	45-50	1 3/4 - 1 15/16 ⁽¹⁾	15/16	69	80	90	98	63	73	82	89	21	24	27	29
4 0.16	30-35	1 3/16 - 1 3/8 ⁽¹⁾	11/16	47	55	61	67	43	50	56	61	14	16	18	20
	40	1 9/16 ⁽¹⁾	15/16	68	78	87	95	62	71	80	87	20	23	26	29
	45-50	1 3/4 - 1 15/16 ⁽²⁾	1 3/16	88	101	114	124	80	92	103	113	26	30	34	37
	60	2 3/8 ⁽²⁾	1 3/8	105	121	135	148	96	110	123	134	31	36	41	44
	70-80	2 3/4 - 3 1/8	1 9/16	122	140	157	171	111	128	143	156	37	42	47	51
4,5 0.18	40	1 9/16 ⁽¹⁾	15/16	66	76	85	93	60	69	78	85	20	23	26	28
	45-50	1 3/4 - 1 15/16 ⁽¹⁾	1 3/16	86	99	111	121	79	90	101	111	26	30	33	36
	60	2 3/8 ⁽²⁾	1 3/8	103	119	133	145	94	108	121	132	31	36	40	44
	70-80	2 3/4 - 3 1/8 ⁽²⁾	1 9/16	120	138	155	169	109	126	141	154	36	42	47	51
5 0.20	40-50	1 9/16 - 1 15/16 ⁽¹⁾	15/16	77	89	99	109	70	81	91	99	23	27	30	33
	60	2 3/8 ⁽¹⁾	1 3/16	101	117	131	144	92	107	119	131	30	35	39	43
	70	2 3/4 ⁽¹⁾	1 3/8	122	141	157	172	111	128	143	157	36	42	47	52
	80	3 1/8 ⁽²⁾	1 9/16	142	164	183	201	129	149	167	183	43	49	55	60
	90	3 1/2 ⁽²⁾	1 3/4	162	187	209	230	148	171	191	209	49	56	63	69
	100	4	1 15/16	182	211	236	259	166	192	214	235	55	63	71	78
	120	4 3/4	2 3/8	223	258	288	316	203	234	262	288	67	77	86	95
6 0.24	40-50	1 9/16 - 1 15/16 ⁽¹⁾	1 3/8	150	172	195	215	136	157	178	195	45	52	59	64
	60	2 3/8 ⁽¹⁾	1 3/16	124	143	162	178	113	130	147	162	37	43	48	53
	70-80	2 3/4 - 3 1/8 ⁽¹⁾	1 9/16	175	202	229	252	160	184	208	229	53	61	69	75
	90-100	3 1/2 - 4 ⁽²⁾	1 15/16	227	262	296	326	207	238	270	296	68	78	89	98
	110-130	4 3/8 - 5 1/8	2 3/8	279	321	364	400	253	292	331	364	84	96	109	120
8 0.32	140-400	5 1/2 - 15 3/4	2 15/16	356	410	465	511	324	373	423	465	107	123	139	153
	80-100	3 1/8 - 4 ⁽¹⁾	2 1/16	298	345	390	428	271	314	355	389	89	103	117	128
	120-140	4 3/4 - 5 1/2 ⁽²⁾	2 3/8	352	407	461	506	320	371	419	460	106	122	138	152
	160-280	6 1/4 - 11	3 1/8	488	564	638	700	444	513	580	637	146	169	191	210
	300-600	11 3/4 - 23 5/8	4	623	721	815	895	567	656	742	814	187	216	244	268
10 0.40	80-100	3 1/8 - 4 ⁽¹⁾	2 1/16	341	395	446	489	310	360	406	445	102	119	134	147
	120-140	4 3/4 - 5 1/2 ⁽¹⁾	2 3/8	406	470	531	583	369	428	484	530	122	141	159	175
	160-280	6 1/4 - 11 ⁽²⁾	3 1/8	568	659	744	816	517	599	677	742	170	198	223	245
	300-600	11 3/4 - 23 5/8	4	730	847	957	1049	664	771	871	954	219	254	287	315
12 0.48	120-280	4 3/4 - 11 ⁽¹⁾	3 1/8	589	683	771	846	536	621	702	770	177	205	231	254
	320-1000	12 5/8 - 39 3/8	4 3/4	935	1084	1225	1344	851	987	1114	1223	281	325	367	403

⁽¹⁾ The embedded thread length does not comply with the minimum requirement of ESR-4645 (6 times the outer thread diameter for screws installed at 90° to the grain and 8 times the outer thread diameter for screws installed at an angle $0^\circ \leq \alpha < 90^\circ$ to the grain).

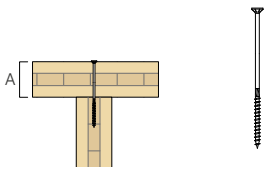
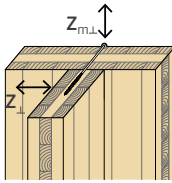
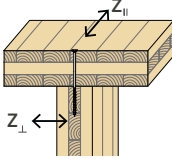
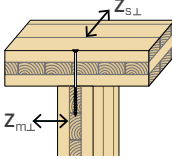
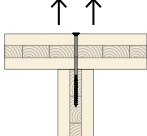
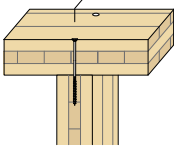
⁽²⁾ The embedded thread length does not comply with the minimum requirement of ESR-4645 (8 times the outer thread diameter for screws installed at an angle $0^\circ \leq \alpha < 90^\circ$ to the grain).

HEAD PULL-THROUGH (W_H) | WOOD

geometry			head pull through $90^\circ \leq \alpha \leq 30^\circ$			
d_1	d_k		G			
[mm]	[in]	[in]	0.35 [lbf]	0.42 [lbf]	0.49 [lbf]	0.55 [lbf]
3,5	0.14	0.28	51	59	67	73
4	0.16	0.31	75	87	98	108
4,5	0.18	0.35	95	110	124	136
5	0.20	0.39	117	136	153	168
6	0.24	0.47	142	165	186	204
8	0.32	0.57	220	264	298	327
10	0.40	0.72	273	316	357	392
12	0.48	0.82	392	453	513	562

NOTES and GENERAL PRINCIPLES on page 50.

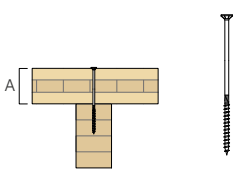
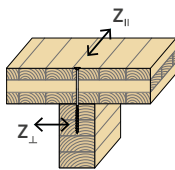
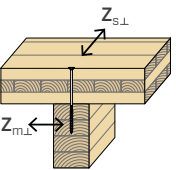
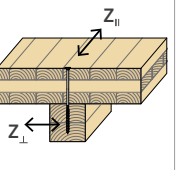
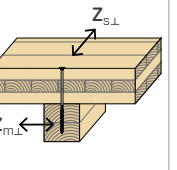
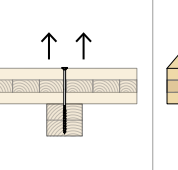
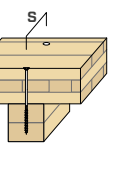
CLT | WALL-TO-WALL | FLOOR-TO-WALL

geometry				SHEAR						TENSION	SPACING	
				wall-to-wall		floor-to-wall orientation 1		floor-to-wall orientation 2		withdrawal / head pull-through	fastener in a row	
												
side member thickness (wall/floor) = A		suggested screw	CODE	Z _⊥	Z _{m⊥}	Z _⊥	Z _∥	Z _{m⊥}	Z _{s⊥}	W(*)	minimum	typical
[mm]	[in]			[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[in]
3 PLY	60	2 3/8	HBS6120	110	110	110	110	110	110	165	3 1/2	6
			HBS8120	131	131	131	164	131	131	264	3 1/8	6
			HBS10120	122	145	122	208	145	143	316	4	8
			HBS12160	158	189	158	258	189	168	453	4 3/4	10
	79	3 1/8	HBS6160	110	110	110	110	110	110	165	3 1/2	6
			HBS8160	131	131	131	164	131	131	264	3 1/8	6
			HBS10160	155	167	155	226	167	167	316	4	8
			HBS12160	167	188	167	259	188	189	453	4 3/4	10
	105	4 1/8	HBS6180	110	110	110	110	110	110	165	3 1/2	6
			HBS8200	131	131	131	164	131	131	264	3 1/8	6
			HBS10200	155	167	155	226	167	167	316	4	8
			HBS12200	175	189	175	259	189	189	453	4 3/4	10
	120	4 3/4	HBS6200	110	110	110	110	110	110	165	3 1/2	6
			HBS8200	131	131	131	164	131	131	264	3 1/8	6
			HBS10200	155	167	155	226	167	167	316	4	8
			HBS12200	175	189	175	259	189	189	453	4 3/4	10
5 PLY	100	3 15/16	HBS6180	110	110	110	110	110	110	165	3 1/2	6
			HBS8180	131	131	131	164	131	131	264	3 1/8	6
			HBS10180	155	167	155	226	167	167	316	4	8
			HBS12200	175	189	175	259	189	189	453	4 3/4	10
	140	5 1/2	HBS6220	110	110	110	110	110	110	165	3 1/2	6
			HBS8220	131	131	131	164	131	131	264	3 1/8	6
			HBS10220	155	167	155	226	167	167	316	4	8
			HBS12240	175	189	175	259	189	189	453	4 3/4	10
	175	6 7/8	HBS6260	110	110	110	110	110	110	165	3 1/2	6
			HBS8260	131	131	131	164	131	131	264	3 1/8	6
			HBS10260	155	167	155	226	167	167	316	4	8
			HBS12280	175	189	175	259	189	189	453	4 3/4	10
	200	7 7/8	HBS6280	110	110	110	110	110	110	165	3 1/2	6
			HBS8280	131	131	131	164	131	131	264	3 1/8	6
			HBS10280	155	167	155	226	167	167	316	4	8
			HBS12280	175	188	175	259	188	189	453	4 3/4	10
7 PLY	140	5 1/2	HBS6220	110	110	110	110	110	110	165	3 1/2	6
			HBS8220	131	131	131	164	131	131	264	3 1/8	6
			HBS10220	155	167	155	226	167	167	316	4	8
			HBS12240	175	189	175	259	189	189	453	4 3/4	10
	191	7 1/2	HBS6280	110	110	110	110	110	110	165	3 1/2	6
			HBS8280	131	131	131	164	131	131	264	3 1/8	6
			HBS10280	155	167	155	226	167	167	316	4	8
			HBS12280	175	189	175	259	189	189	453	4 3/4	10
	244	9 5/8	HBS6320	110	110	110	110	110	110	165	3 1/2	6
			HBS8360	131	131	131	164	131	131	264	3 1/8	6
			HBS10360	155	167	155	226	167	167	316	4	8
			HBS12400	175	189	175	259	189	189	453	4 3/4	10
	280	11	HBS6360	110	110	110	110	110	110	165	3 1/2	6
			HBS8380	131	131	131	164	131	131	264	3 1/8	6
			HBS10380	155	167	155	226	167	167	316	4	8
			HBS12400	175	189	175	259	189	189	453	4 3/4	10

(*) Minimum between head pull-through and withdrawal resistance

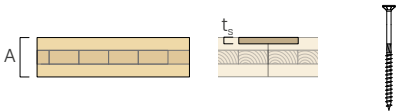
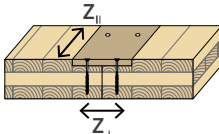
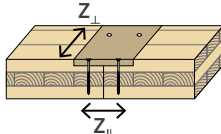
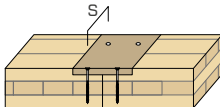
NOTES and GENERAL PRINCIPLES on page 50.

CLT | FLOOR-TO-BEAM

geometry				SHEAR								TENSION	SPACING	
				floor-to-beam orientation 1		floor-to-beam orientation 2		floor-to-double lumber 2" orientation 1		floor-to-double lumber 2" orientation 2		withdrawal / head pull-through	fastener in a row	
														
side member thickness (wall/floor) = A		suggested screw	Z _⊥	Z	Z _{m⊥}	Z _{s⊥}	Z _⊥	Z	Z _{m⊥}	Z _{s⊥}	W(*)	minimum	typical	
[mm]	[in]	CODE	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[lbf]	[in]	[in]	
5 PLY	100	3 15/16	HBS6180	165	165	165	165	165	165	165	165	165	3 1/2	6
			HBS8180	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS10180	232	338	249	249	232	338	167	249	316	4	8
			HBS12200	261	387	282	282	261	387	282	282	453	4 3/4	10
	140	5 1/2	HBS6220	165	165	165	165	165	165	165	165	165	3 1/2	6
			HBS8220	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS10220	232	338	249	249	232	338	249	249	316	4	8
			HBS12240	261	387	282	282	261	387	282	282	453	4 3/4	10
	175	6 7/8	HBS6260	165	165	165	165	165	165	165	165	165	3 1/2	6
			HBS8260	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS10260	232	338	167	249	232	338	167	249	316	4	8
			HBS12240	237	387	252	282	237	387	252	282	453	4 3/4	10
			HBS12280	261	387	282	282	-	-	-	-	453	4 3/4	10
	200	7 7/8	HBS6280	165	165	165	165	165	165	165	165	165	3 1/2	6
			HBS8280	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS10280	232	338	249	249	232	338	249	249	316	4	8
			HBS12280	261	387	281	282	261	387	281	282	453	4 3/4	10
	140	5 1/2	HBS6220	165	165	165	165	165	165	165	165	165	3 1/2	6
			HBS8220	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS10220	232	338	249	249	232	338	249	249	316	4	8
HBS12240			261	387	282	282	261	387	282	282	453	4 3/4	10	
191	7 1/2	HBS6280	165	165	165	165	165	165	165	165	165	3 1/2	6	
		HBS8280	196	245	196	196	196	245	196	196	264	3 1/8	6	
		HBS10280	232	338	249	249	232	338	249	249	316	4	8	
		HBS12280	261	387	282	282	261	387	282	282	453	4 3/4	10	
7 PLY	244	9 5/8	HBS6320	165	165	110	165	165	165	110	165	165	3 1/2	6
			HBS8340	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS8360	196	245	131	196	-	-	-	-	264	3 1/8	6
			HBS10340	232	338	249	249	232	338	249	249	316	4	8
			HBS10360	232	338	249	249	-	-	-	-	316	4	8
			HBS12320	258	387	183	282	258	387	183	282	453	4 3/4	10
			HBS12400	261	387	282	282	-	-	-	-	453	4 3/4	10
	280	11	HBS6360	165	165	165	165	165	165	165	165	165	3 1/2	6
HBS8380			196	245	196	196	196	245	196	196	264	3 1/8	6	
HBS10380			232	338	167	249	232	338	167	249	316	4	8	
HBS12360			261	387	282	282	261	387	282	282	453	4 3/4	10	
HBS12400			261	387	282	282	-	-	-	-	453	4 3/4	10	
9 PLY	180	7 1/16	HBS6260	165	165	165	165	165	165	165	165	165	3 1/2	6
			HBS8260	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS10260	232	338	249	249	232	338	249	249	316	4	8
			HBS12280	261	387	282	282	261	387	282	282	453	4 3/4	10
	267	10 1/2	HBS6360	165	165	165	165	165	165	165	165	165	3 1/2	6
			HBS8360	196	245	196	196	196	245	196	196	264	3 1/8	6
			HBS8380	196	245	196	196	-	-	-	-	264	3 1/8	6
			HBS10360	232	338	249	249	232	338	249	249	316	4	8
			HBS10380	232	338	249	249	-	-	-	-	316	4	8
			HBS12360	261	387	282	282	261	387	282	282	453	4 3/4	10
HBS12400	261	387	189	282	-	-	-	-	453	4 3/4	10			

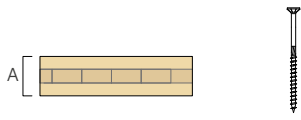
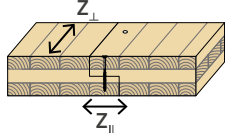
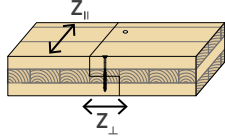
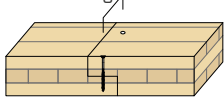
(*)Minimum between head pull-through and withdrawal resistance

NOTES and GENERAL PRINCIPLES on page 50.

					SHEAR				SPACING	
geometry					spline joint orientation 1		spline joint orientation 2		fastener in a row	
										
panel thickness (wall/floor) = A			spline thickness = t _s	suggested screw	Z	Z _⊥	Z	Z _⊥	minimum	typical
[mm]	[in]	[in]	CODE	[lbf]	[lbf]	[lbf]	[lbf]	[in]	[in]	
3 PLY	79	3 1/8	1/2	HBS550	91	91	91	91	2 15/16	3
				HBS650	107	107	107	107	3 1/2	4
		3/4		HBS560	95	95	95	95	2 15/16	3
				HBS660	120	120	120	120	3 1/2	4
		1		HBS570	103	103	103	103	2 15/16	3
				HBS670	128	128	128	128	3 1/2	4
	86	3 3/8	1/2	HBS560	91	91	91	91	2 15/16	3
				HBS660	116	116	116	116	3 1/2	4
		3/4		HBS570	95	95	95	95	2 15/16	3
				HBS670	120	120	120	120	3 1/2	4
		1		HBS680	128	128	128	128	3 1/2	4
				HBS880	179	143	179	143	3 1/8	4
	105	4 1/8	1/2	HBS670	91	91	91	91	2 15/16	3
				HBS870	116	116	116	116	3 1/2	4
		3/4		HBS680	120	120	120	120	3 1/2	4
				HBS880	173	139	173	139	3 1/8	4
		1		HBS690	128	128	128	128	3 1/2	4
				HBS890	179	143	179	143	3 1/8	4
5 PLY	130	5 1/8	3/4	HBS680	120	120	120	120	3 1/2	4
				HBS880	173	139	173	139	3 1/8	4
		1		HBS690	128	128	128	128	3 1/2	4
				HBS880	179	143	179	143	3 1/8	4
				HBS1080	202	128	202	128	4	6
	140	5 1/2	3/4	HBS690	120	120	120	120	3 1/2	4
				HBS8100	173	139	173	139	3 1/8	4
		1		HBS6100	128	128	128	128	3 1/2	4
				HBS8100	179	143	179	143	3 1/8	4
				HBS10100	211	164	211	164	4	6
	175	6 7/8	3/4	HBS6100	120	120	120	120	3 1/2	4
				HBS8100	173	139	173	139	3 1/8	4
1			HBS6120	128	128	128	128	3 1/2	4	
			HBS8120	179	143	179	143	3 1/8	4	
			HBS10120	211	164	211	164	4	6	
7 PLY	191	7 1/2	3/4	HBS690	120	120	120	120	3 1/2	4
				HBS890	173	139	173	139	3 1/8	4
		1		HBS6100	128	128	128	128	3 1/2	4
				HBS8100	179	143	179	143	3 1/8	4
				HBS10120	211	164	211	164	4	6
	220	8 5/8	3/4	HBS6100	120	120	120	120	3 1/2	4
				HBS8100	173	139	173	139	3 1/8	4
		1		HBS6120	128	128	128	128	3 1/2	4
				HBS8120	179	143	179	143	3 1/8	4
				HBS10140	211	164	211	164	4	6
244	9 5/8	3/4	HBS6120	120	120	120	120	3 1/2	4	
			HBS8120	173	139	173	139	3 1/8	4	
	1		HBS6140	128	128	128	128	3 1/2	4	
			HBS8140	179	143	179	143	3 1/8	4	
			HBS10140	211	164	211	164	4	6	

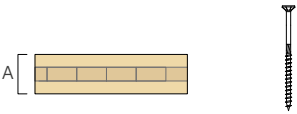
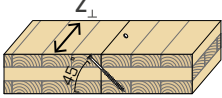
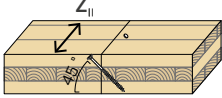
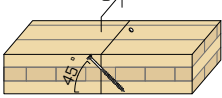
NOTES and GENERAL PRINCIPLES on page 50.

CLT | HALF LAP

geometry			SHEAR				SPACING		
			half lap orientation 1		half lap orientation 2		fastener in a row		
									
panel thickness (wall/floor) = A		suggested screw	Z _⊥	Z	Z _⊥	Z	minimum	typical	
[mm]	[in]	CODE	[lbf]	[lbf]	[lbf]	[lbf]	[in]	[in]	
3 PLY	105	4 1/8	HBS690	144	144	144	144	3 1/2	6
			HBS8100	174	218	174	218	3 1/8	6
			HBS10100	153	261	153	261	4	8
	120	4 3/4	HBS6110	165	165	165	165	3 1/2	6
			HBS8100	160	200	160	200	3 1/8	6
			HBS10100	160	272	160	272	4	8
5 PLY	100	3 15/16	HBS690	149	149	149	149	3 1/2	6
			HBS880	143	179	143	179	3 1/8	6
			HBS1080	129	220	129	220	4	8
	140	5 1/2	HBS6130	165	165	165	165	3 1/2	6
			HBS8120	178	222	178	222	3 1/8	6
			HBS10120	189	301	189	301	4	8
			HBS12120	194	329	194	329	4 3/4	10
	175	6 7/8	HBS6160	165	165	165	165	3 1/2	6
			HBS8160	196	245	196	245	3 1/8	6
			HBS10160	232	338	232	338	4	8
			HBS12160	248	387	248	387	4 3/4	10
	200	7 7/8	HBS6180	165	165	165	165	3 1/2	6
			HBS8180	196	245	196	245	3 1/8	6
			HBS10180	232	338	232	338	4	8
			HBS12160	221	357	221	357	4 3/4	10
7 PLY	140	5 1/2	HBS6130	165	165	165	165	3 1/2	6
			HBS8120	178	222	178	222	3 1/8	6
			HBS10120	189	301	189	301	4	8
			HBS12120	194	328	194	328	4 3/4	10
	191	7 1/2	HBS8180	196	245	196	245	3 1/8	6
			HBS10180	232	338	232	338	4	8
			HBS12160	231	376	231	376	4 3/4	10
	244	9 5/8	HBS8220	196	245	196	245	3 1/8	6
			HBS10220	232	338	232	338	4	8
			HBS12240	261	387	261	387	4 3/4	10
	280	11	HBS8260	196	245	196	245	3 1/8	6
			HBS10260	232	338	232	338	4	8
		HBS12240	261	387	261	387	4 3/4	10	
9 PLY	180	7 1/16	HBS6160	165	165	165	165	3 1/2	6
			HBS8160	196	245	196	245	3 1/8	6
			HBS10160	228	338	228	338	4	8
			HBS12160	242	387	242	387	4 3/4	10
	267	10 1/2	HBS8260	196	245	196	245	3 1/8	6
			HBS10260	232	338	232	338	4	8
			HBS12240	261	387	261	387	4 3/4	10
	314	12 3/8	HBS8300	196	245	196	245	3 1/8	6
			HBS10300	232	338	232	338	4	8
			HBS12280	261	387	261	387	4 3/4	10
	360	14 3/16	HBS8340	196	245	196	245	3 1/8	6
			HBS10340	232	338	232	338	4	8
		HBS12320	261	387	261	387	4 3/4	10	

NOTES and GENERAL PRINCIPLES on page 50.

CLT | BUTT JOINT

geometry			SHEAR		SPACING	
			butt joint orientation 1	butt joint orientation 2	fastener in a row	
						
panel thickness (wall/floor) = A		suggested screw	$Z_{\perp}$	$Z_{\parallel}$	minimum	typical
[mm]	[in]	CODE	[lbf]	[lbf]	[in]	[in]
3 PLY	105	4 1/8	HBS6120	110	3 1/2	6
			HBS8120	131	3 1/8	6
			HBS10120	122	4	8
			HBS12120	125	4 3/4	10
	120	4 3/4	HBS6150	110	3 1/2	6
			HBS8140	131	3 1/8	6
			HBS10140	143	4	8
			HBS12160	167	4 3/4	10
5 PLY	100	3 15/16	HBS6120	110	3 1/2	6
			HBS8120	131	3 1/8	6
			HBS10120	122	4	8
			HBS12120	125	4 3/4	10
	140	5 1/2	HBS6180	110	3 1/2	6
			HBS8180	131	3 1/8	6
			HBS10180	155	4	8
			HBS12160	167	4 3/4	10
	175	6 7/8	HBS6220	110	3 1/2	6
			HBS8220	131	3 1/8	6
			HBS10220	155	4	8
			HBS12200	175	4 3/4	10
	200	7 7/8	HBS6260	110	3 1/2	6
			HBS8260	131	3 1/8	6
			HBS10260	155	4	8
			HBS12240	175	4 3/4	10
7 PLY	140	5 1/2	HBS6180	110	3 1/2	6
			HBS8180	131	3 1/8	6
			HBS10180	155	4	8
			HBS12160	167	4 3/4	10
	191	7 1/2	HBS6240	110	3 1/2	6
			HBS8240	131	3 1/8	6
			HBS10240	155	4	8
			HBS12240	175	4 3/4	10
	244	9 5/8	HBS8320	131	3 1/8	6
			HBS10320	155	4	8
			HBS12320	175	4 3/4	10
	280	11	HBS8380	131	3 1/8	6
			HBS10380	155	4	8
			HBS12360	175	4 3/4	10
9 PLY	180	7 1/16	HBS6240	110	3 1/2	6
			HBS8240	131	3 1/8	6
			HBS10240	155	4	8
			HBS12240	175	4 3/4	10
	267	10 1/2	HBS8360	131	3 1/8	6
			HBS10360	155	4	8
			HBS12360	175	4 3/4	10
	314	12 3/8	HBS6400	110	3 1/2	6
			HBS8400	131	3 1/8	6
			HBS10400	155	4	8
			HBS12400	175	4 3/4	10

NOTES and GENERAL PRINCIPLES on page 50.