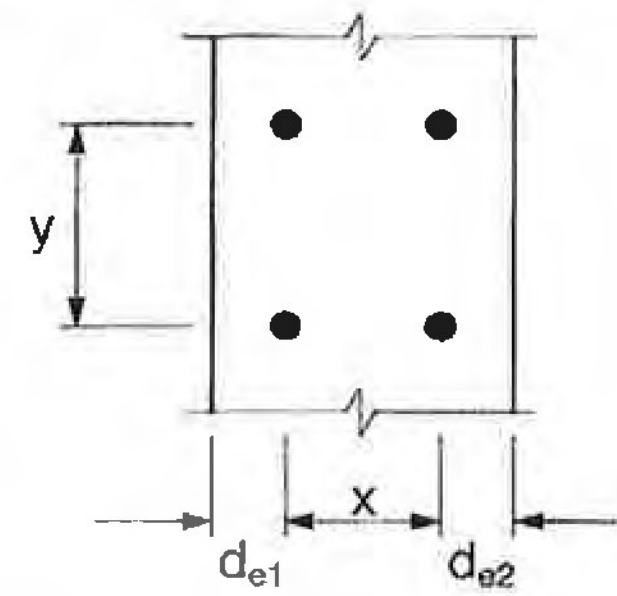


Figure 6.15.7A (continued) Design tensile strength for $h \geq h_{min}$, ϕP_{c1} —Case 3



x and y are the overall dimensions (width and length) of the stud group.

Case 3: Free edges on two opposite sides

$$\phi P_{c1} = \phi 2.67 \lambda \sqrt{f'_c} (x_1)(y_1 + 2\ell_d)$$

$$\phi = 0.85$$

where: x_1 and y_1 are the dimensions of the flat bottom of the part of the truncated pyramid.

For Case 3: $x_1 = x + d_{e1} + d_{e2}$ $y_1 = y$

Note: Table values are based on $\lambda = 1.0$ and $f'_c = 5000$ psi; for different material properties, multiply table values by $\lambda \sqrt{f'_c} / 5000$

y ₁ , in.	x ₁ , in.	Design tensile strength, ϕP_{c1} (kips)														
		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
0	0	2	4	6	8	9	11	13	15	17	19	21	23	25	27	29
2	0	3	5	8	10	13	15	18	21	23	25	28	31	33	36	39
4	0	3	7	9	13	16	19	23	25	29	32	35	39	42	45	48
6	0	4	8	11	15	19	23	27	31	35	39	42	46	50	54	58
8	0	5	9	13	18	23	27	31	36	41	45	49	54	59	63	67
10	0	5	10	15	21	25	31	36	41	46	51	57	61	67	72	77
12	0	6	11	17	23	29	35	41	46	52	58	63	69	75	81	87
14	0	7	13	19	25	32	39	45	51	58	64	71	77	83	90	96
16	0	7	14	21	28	35	42	49	57	63	71	77	85	92	99	106
0	2	3	5	8	10	13	15	18	21	23	25	28	31	33	36	39
2	2	3	7	9	13	16	19	23	25	29	32	35	39	42	45	48
4	2	4	8	11	15	19	23	27	31	35	39	42	46	50	54	58
6	2	5	9	13	18	23	27	31	36	41	45	49	54	59	63	67
8	2	5	10	15	21	25	31	36	41	46	51	57	61	67	72	77
10	2	6	11	17	23	29	35	41	46	52	58	63	69	75	81	87
12	2	7	13	19	25	32	39	45	51	58	64	71	77	83	90	96
14	2	7	14	21	28	35	42	49	57	63	71	77	85	92	99	106
16	2	8	15	23	31	39	46	54	61	69	77	85	92	100	108	115
0	4	4	8	11	15	19	23	27	31	35	39	42	46	50	54	58
2	4	5	9	13	18	23	27	31	36	41	45	49	54	59	63	67
4	4	5	10	15	21	25	31	36	41	46	51	57	61	67	72	77
6	4	6	11	17	23	29	35	41	46	52	58	63	69	75	81	87
8	4	7	13	19	25	32	39	45	51	58	64	71	77	83	90	96
10	4	7	14	21	28	35	42	49	57	63	71	77	85	92	99	106
12	4	8	15	23	31	39	46	54	61	69	77	85	92	100	108	115
14	4	9	17	25	33	42	50	59	67	75	83	92	100	109	117	125
16	4	9	18	27	36	45	54	63	72	81	90	99	108	117	125	135
0	6	5	10	15	21	25	31	36	41	46	51	57	61	67	72	77
2	6	6	11	17	23	29	35	41	46	52	58	63	69	75	81	87
4	6	7	13	19	25	32	39	45	51	58	64	71	77	83	90	96
6	6	7	14	21	28	35	42	49	57	63	71	77	85	92	99	106
8	6	8	15	23	31	39	46	54	61	69	77	85	92	100	108	115
10	6	9	17	25	33	42	50	59	67	75	83	92	100	109	117	125
12	6	9	18	27	36	45	54	63	72	81	90	99	108	117	125	135
14	6	9	19	29	39	48	58	67	77	87	96	106	115	125	135	144
16	6	10	21	31	41	51	61	72	82	92	103	113	123	133	143	154