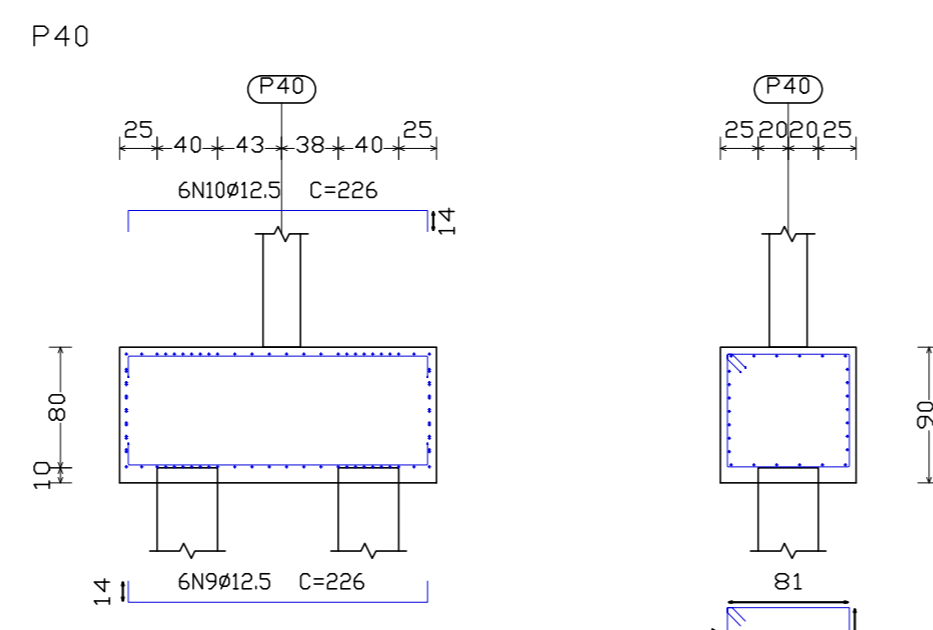
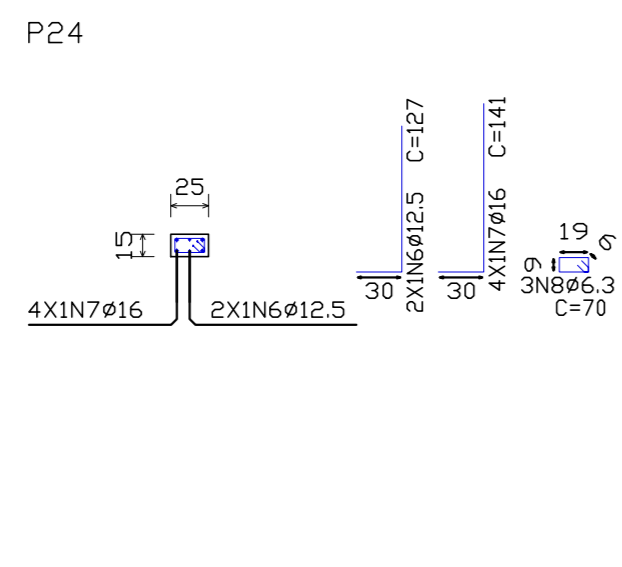
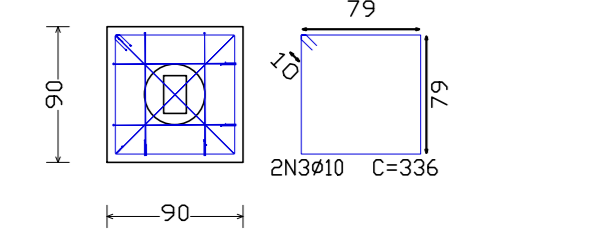
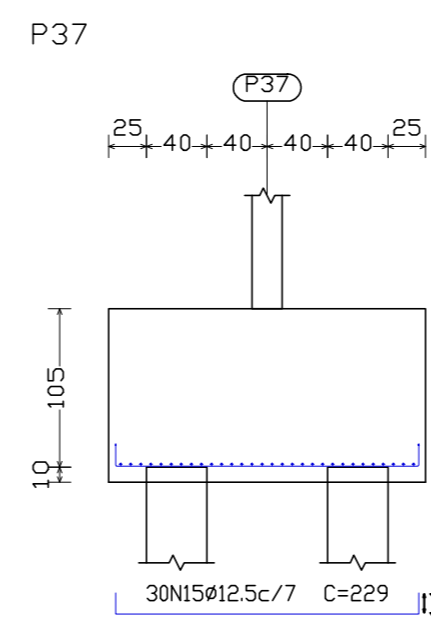
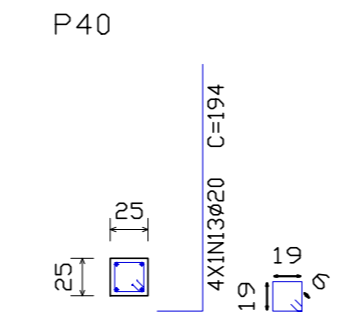
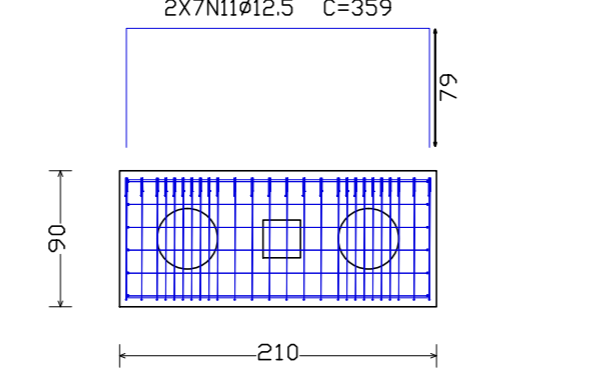


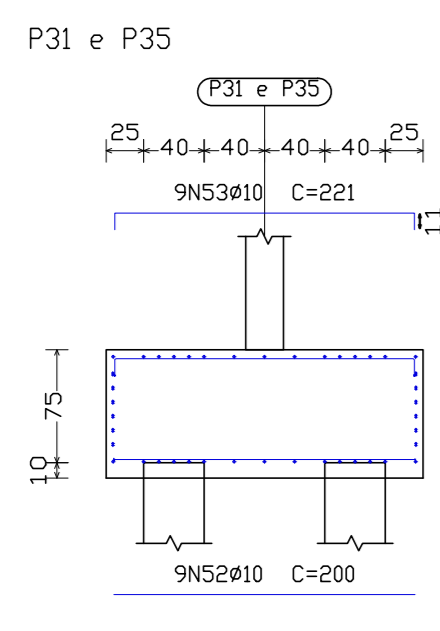
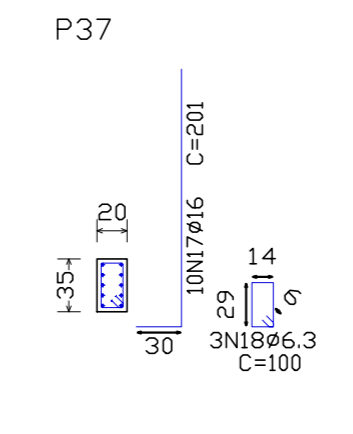
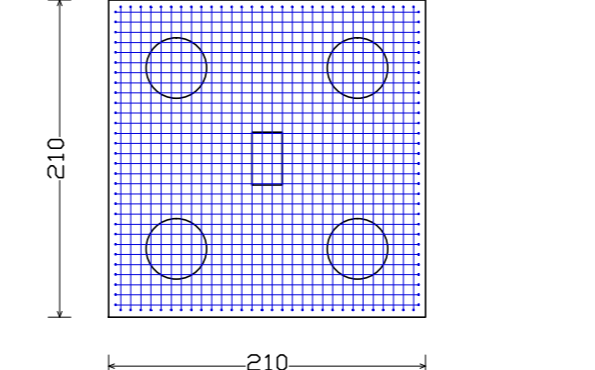
Estacas: EST. ESCV. C25Mpa PF = 10 M



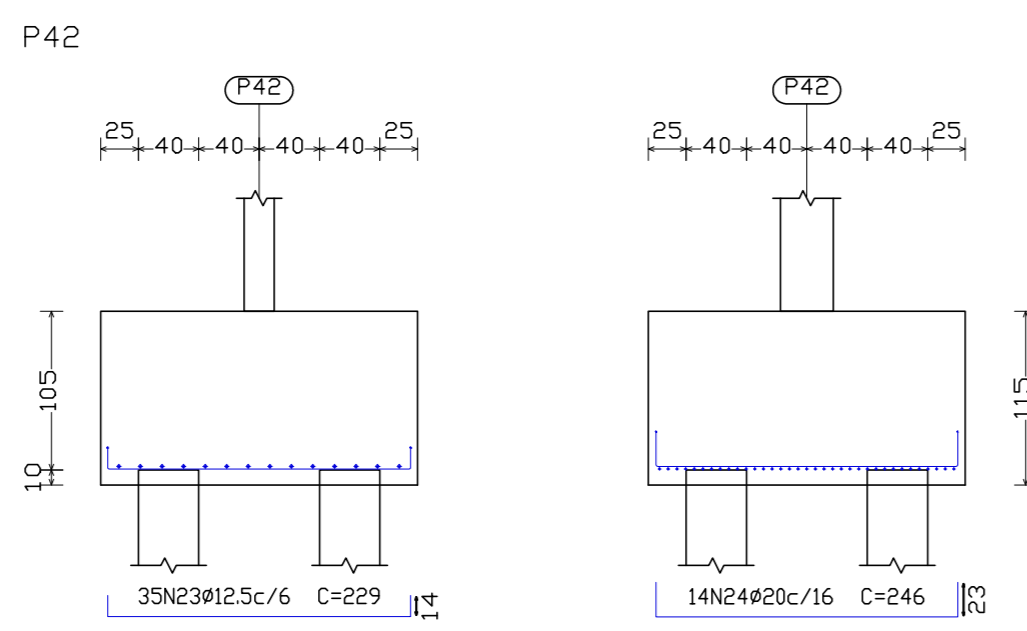
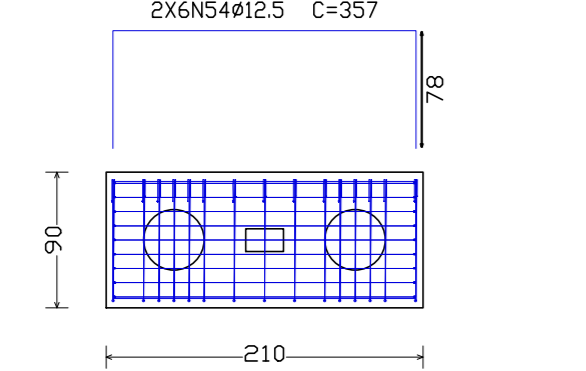
Estacas: EST. ESCV. C25Mpa PF = 10 M



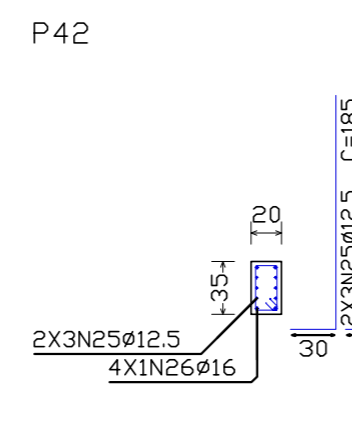
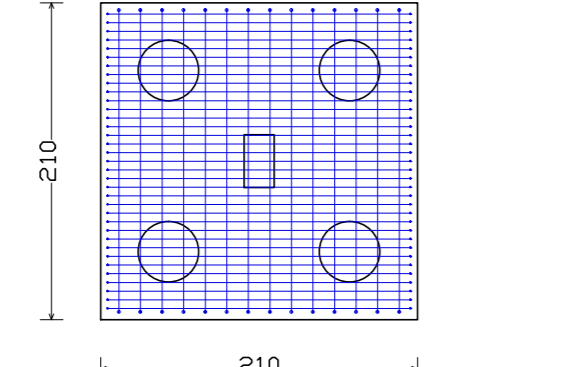
Estacas: EST. ESCV. C25Mpa PF = 10 M



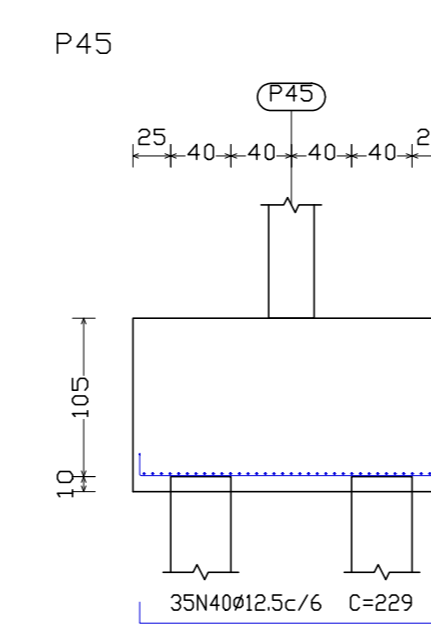
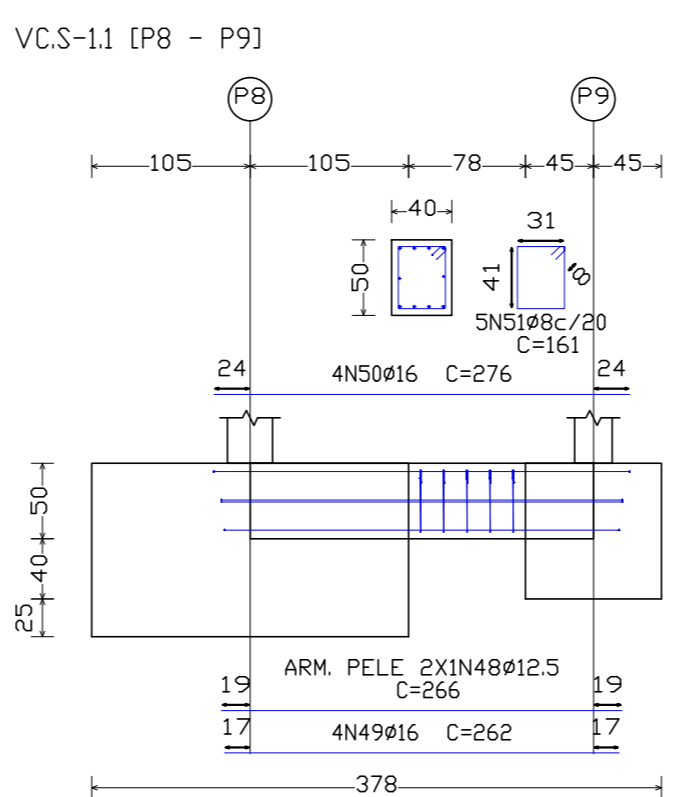
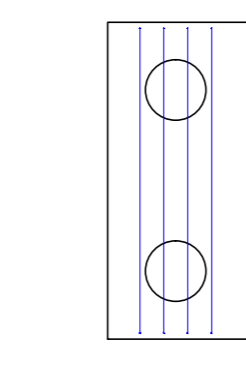
Estacas: EST. ESCV. C25Mpa PF = 9 M



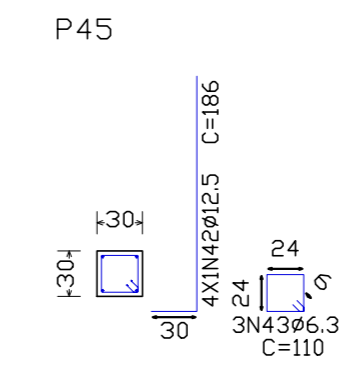
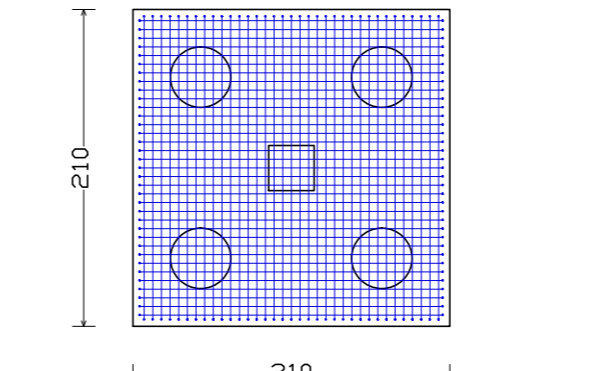
Estacas: EST. ESCV. C25Mpa PF = 9 M



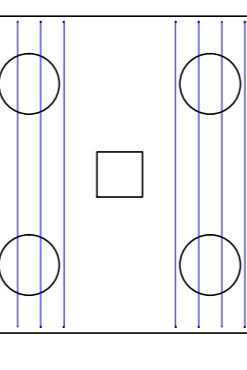
Viga paralela X



Estacas: EST. ESCV. C25Mpa PF = 6 M



Viga paralela Y



Elemento	Pos	Diam	Comp	Vol	Vol	Vol	Total	CA-50	CA-60	
		(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(kg)	(kg)	
P24	1	Ø10	25	262	262	262	262	32	32	
	2	Ø10	25	299	299	299	299	3,2	3,2	
	3	Ø10	25	336	336	336	336	4,1	4,1	
	4	Ø4,2	30	301	301	301	301	0,0	0,0	
	5	Ø4,2	30	299	299	299	299	0,0	0,0	
	6	Ø16	30	97	97	97	97	2,4	2,4	
	7	Ø16	30	111	111	111	111	6,9	6,9	
	8	Ø6,3	30	70	70	70	70	0,5	0,5	
Total=102								24,5	0,7	
P40	9	Ø12,5	14	198	14	226	1356	13,1	13,1	
	10	Ø12,5	14	198	14	198	1356	13,1	13,1	
	11	Ø12,5	14	359	14	359	3065	48,4	48,4	
	12	Ø12,5	26	336	26	336	8736	84,1	84,1	
13	Ø20	46	164	46	164	194	776	19,1	19,1	
14	Ø6,3	30	90	90	90	90	270	0,7	0,7	
Total=102								396,4	192,4	
P37	15	Ø12,5	30	14	201	14	239	6870	66,2	66,2
	16	Ø12,5	30	14	201	14	239	6870	66,2	66,2
	17	Ø16	100	30	173	30	200	2010	30,7	30,7
	18	Ø6,3	30	100	100	100	100	300	0,7	0,7
	19	Ø10	66	202	66	202	1812	7,5	7,5	
	20	Ø10	66	202	66	202	1812	7,5	7,5	
	21	Ø10	66	202	66	202	1812	7,5	7,5	
22	Ø10	66	202	66	202	1812	7,5	7,5		
Total=102								214,3	102,4	
P42	23	Ø12,5	30	14	201	14	229	8025	77,2	77,2
	24	Ø20	146	23	200	23	246	3444	84,9	84,9
	25	Ø12,5	66	30	155	66	185	1110	10,7	10,7
	26	Ø16	100	30	173	30	200	2010	30,7	30,7
	27	Ø6,3	30	100	100	100	100	300	0,7	0,7
	28	Ø10	66	202	66	202	1808	5,0	5,0	
	29	Ø10	66	202	66	202	1808	5,0	5,0	
	30	Ø10	66	202	66	202	1808	5,0	5,0	
	31	Ø10	66	202	66	202	1808	5,0	5,0	
	Total=102								226,7	102,7
	P16	32	Ø16	20	18	200	18	236	4720	74,5
33		Ø16	20	18	200	18	236	4720	74,5	74,5
34		Ø16	66	30	170	66	200	1800	18,9	18,9
35		Ø6,3	30	100	100	100	100	300	0,7	0,7
36		Ø12,5	30	202	30	202	606	5,8	5,8	
37		Ø12,5	30	202	30	202	606	5,8	5,8	
38		Ø12,5	30	202	30	202	606	5,8	5,8	
39		Ø12,5	30	202	30	202	606	5,8	5,8	
Total=102								221,0	102,0	
P45	40	Ø12,5	30	14	201	14	229	8025	77,2	77,2
	41	Ø12,5	30	14	201	14	229	8025	77,2	77,2
	42	Ø12,5	46	30	156	46	186	744	7,2	7,2
	43	Ø6,3	30	110	110	110	110	330	0,8	0,8
	44	Ø10	66	202	66	202	1808	5,0	5,0	
	45	Ø10	66	202	66	202	1808	5,0	5,0	
	46	Ø10	66	202	66	202	1808	5,0	5,0	
	47	Ø10	66	202	66	202	1808	5,0	5,0	
Total=102								220,6	102,6	
VCS-11 (P8 - P9)	48	Ø12,5	26	266	266	266	337	3,1	3,1	
	49	Ø16	46	266	266	266	1048	16,5	16,5	
	50	Ø16	46	276	276	276	1104	17,4	17,4	
	51	Ø8	30	161	161	161	161	805	3,2	3,2
Total=102								46,4	46,4	
P31-P35	52	Ø10	9	200	200	200	1800	11,1	11,1	
	53	Ø10	9	1199	11	1199	321	1985	22,3	22,3
	54	Ø12,5	100	357	357	357	4284	41,3	41,3	
	55	Ø16	100	332	332	332	4980	78,6	78,6	
	56	Ø12,5	46	30	127	46	157	628	6,0	6,0
	57	Ø6,3	30	70	70	70	210	0,5	0,5	
Total=102								164,8	164,8	
Total=102								2976	0,7	
Total=102								5,7	0,0	
Total=102								0,0	0,0	
Total=102								140,0	0,0	
Total=102								320,6	0,0	
Total=102								453,2	0,0	
Total=102								114,4	0,0	
Total=102								493,5	0,7	

Resumo Aço	Comp. total	Peso+10%	Total
Substituição	(cm)	(kg)	
CA-50	Ø6,3	118,8	32
	Ø8	312,5	136
	Ø10	1235,1	837
	Ø12,5	2969,7	3146
	Ø16	2257,5	3920
	Ø20	217,6	590
	Ø25	172,2	730
CA-60	Ø4,2	17,8	2
Total			9393