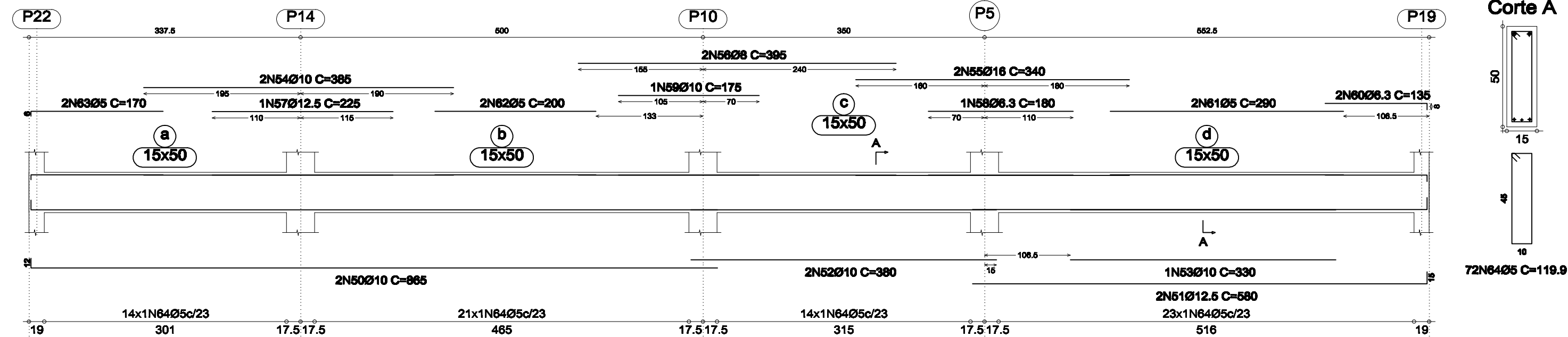
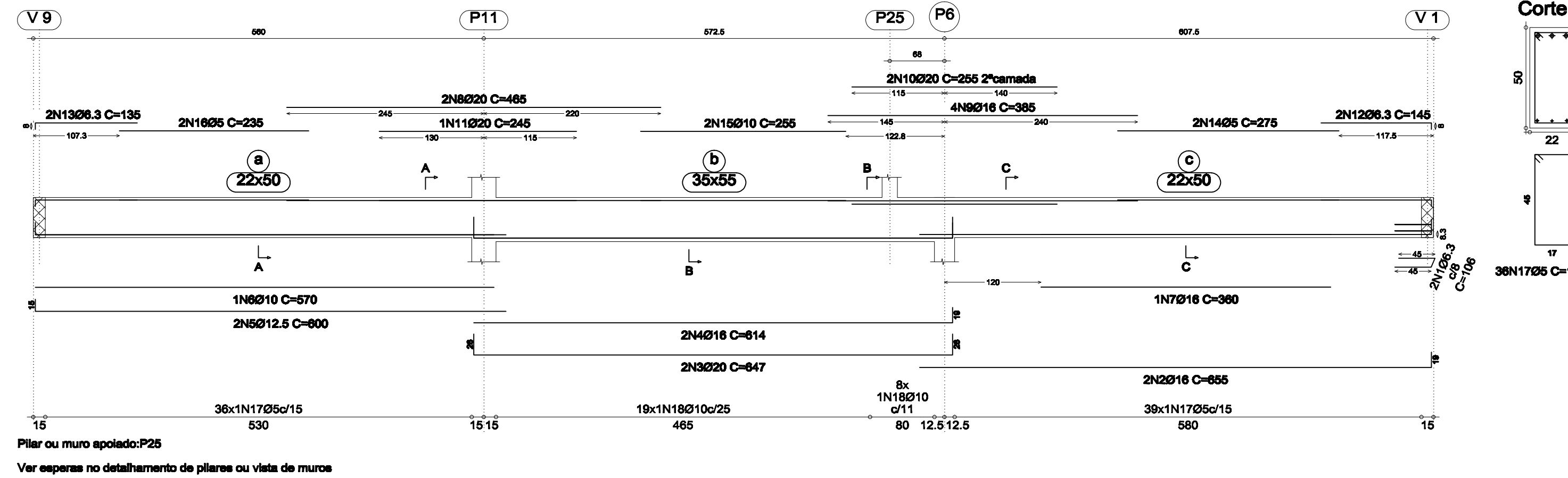


2 Pavio  
Desenho de vigas  
Concreto: C30, usina rigor  
Apo: CA-50-A e CA-60-B  
Escala vigas: 1:50  
Escala seções: 1:20

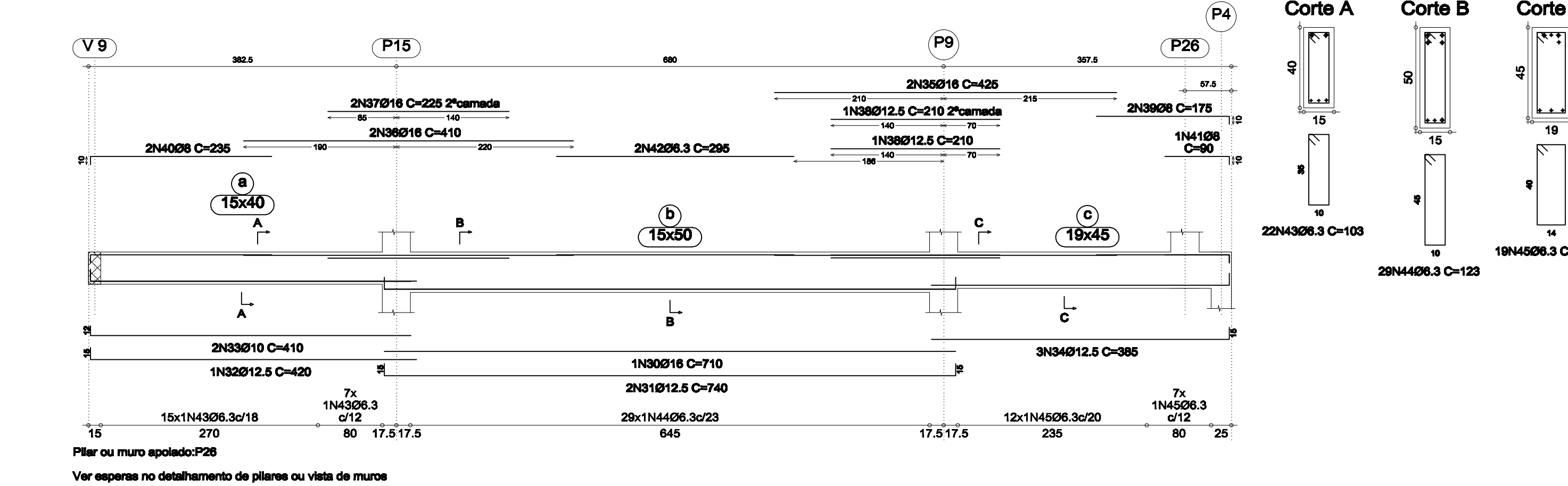
V 10



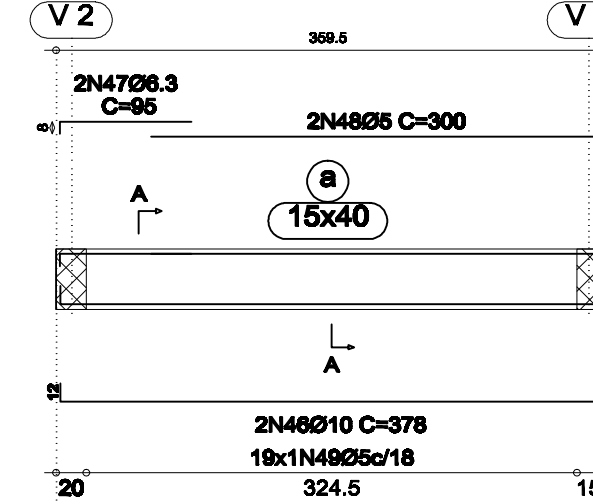
V 12



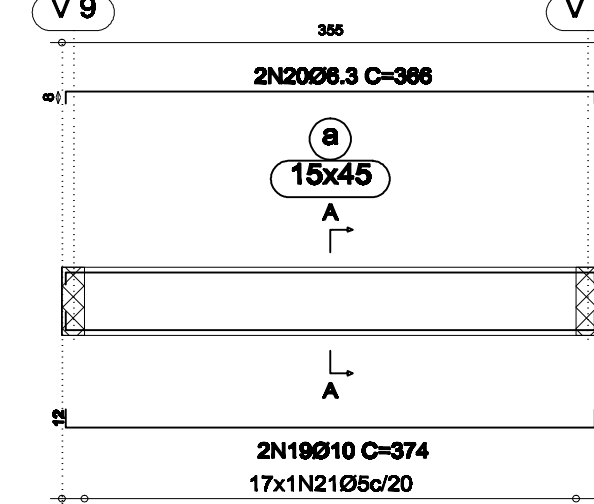
V 16



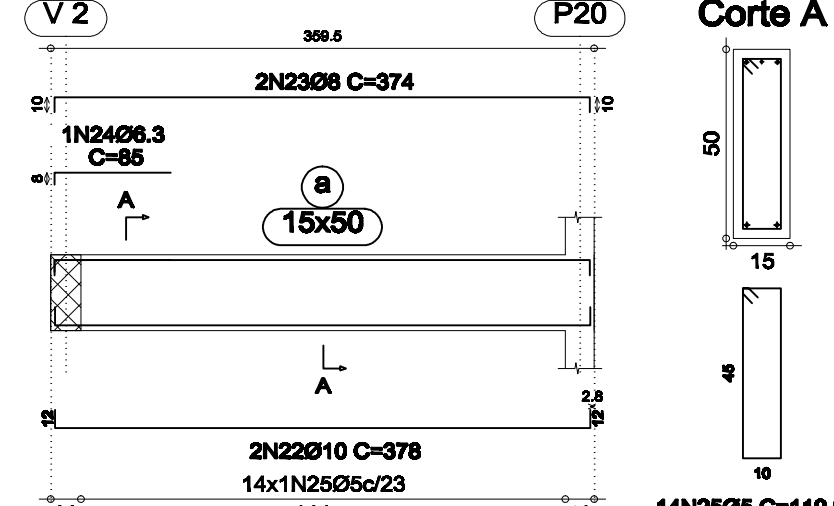
V 11



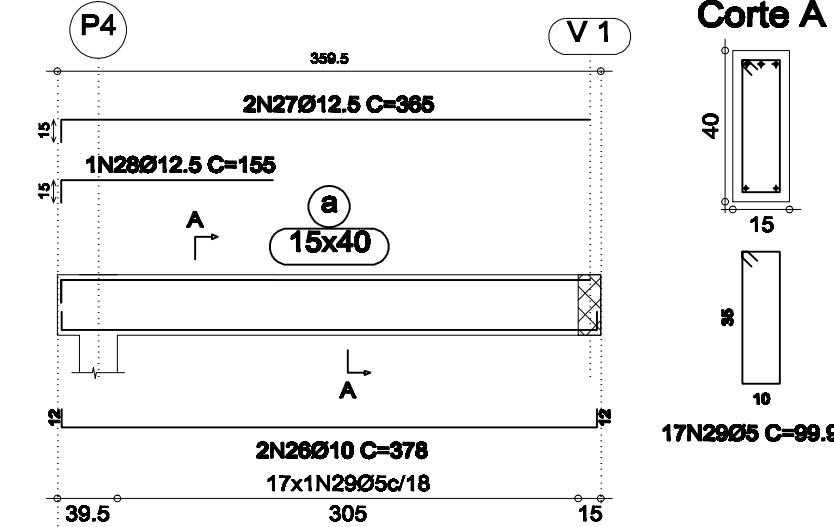
V 13



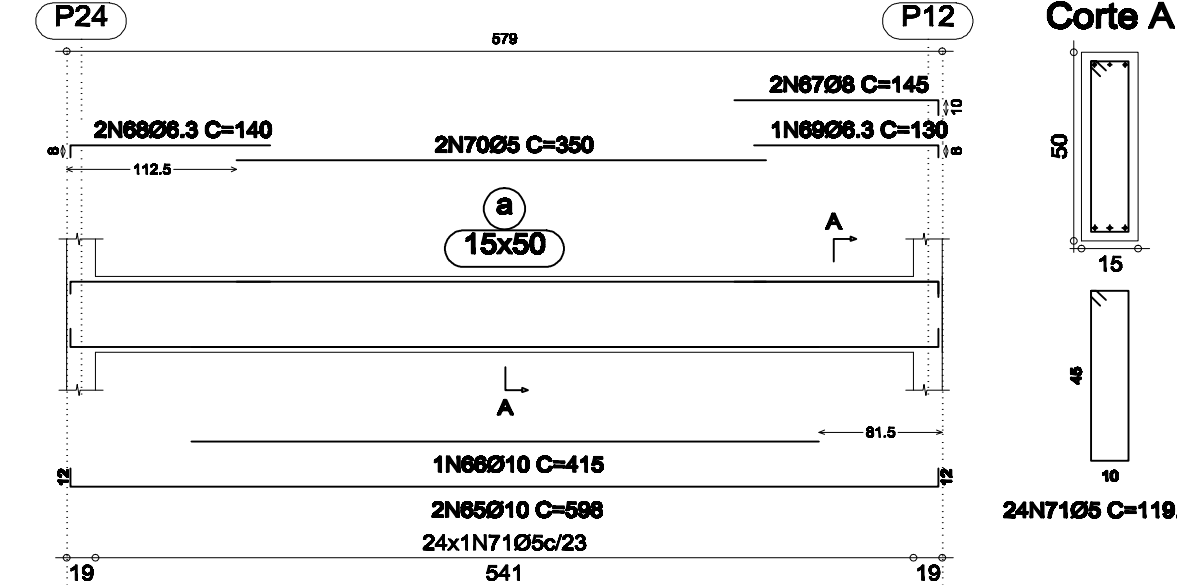
V 14



V 15



V 17



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)	
V 12	1	Ø6.3	2	45	16	45	108	212	0.5		
	2	Ø16	2		636	19	655	1310	20.6		
	3	Ø20	2	26	595	26	647	1294	32.0		
	4	Ø12.5	2		595	19	614	1228	19.3		
	5	Ø12.5	2	15	585		600	1200	11.8		
	6	Ø10	1		570		570	570	3.6		
	7	Ø16	1		360		360	360	5.7		
	8	Ø20	2		465		465	930	23.0		
	9	Ø16	4		385		385	1540	24.2		
	10	Ø20	2		255		255	510	12.6		
	11	Ø20	1		245		245	245	6.1		
	12	Ø6.3	2	137	8		145	290	0.7		
	13	Ø6.3	2	8	127		135	270	0.7		
	14	Ø5	2		275		275	550		0.9	
	15	Ø10	2		255		255	510	3.2		
	16	Ø5	2		235		235	470		0.7	
	17	Ø5	75				134	10050		15.8	
	18	Ø10	27				180	4860	30.5		
Total+10%:									214.0	19.1	
V 13	19	Ø10	2	12	350	12	374	748	4.7		
	20	Ø6.3	2	8	350	8	368	732	1.8		
	21	Ø5	17				110	1870		2.9	
Total+10%:									7.2	3.2	
V 14	22	Ø10	2	12	354	12	378	756	4.7		
	23	Ø8	2	10	354	10	374	748	2.9		
	24	Ø6.3	1	8	77		85	85	0.2		
	25	Ø5	14				120	1680		2.6	
Total+10%:									8.6	2.9	
V 15	26	Ø10	2	12	354	12	378	756	4.7		
	27	Ø12.5	2	15	350		365	730	7.2		
	28	Ø12.5	1	15	140		155	155	1.5		
	29	Ø5	17				100	1700		2.7	
Total+10%:									14.7	3.0	
V 16	30	Ø16	1		710		710	710	11.1		
	31	Ø12.5	2	15	710	15	740	1480	14.5		
	32	Ø12.5	1	15	405		420	420	4.1		
	33	Ø10	2	12	398		410	820	5.1		
	34	Ø12.5	3		370	15	385	1155	11.3		
	35	Ø16	2		425		425	850	13.3		
	36	Ø16	2		410		410	820	12.9		
	37	Ø16	2		225		225	450	7.1		
	38	Ø12.5	2		210		210	420	4.1		
	39	Ø8	2		165	10	175	350	1.4		
	40	Ø8	2	10	225		235	470	1.8		
	41	Ø8	1		80	10	90	90	0.4		
	42	Ø6.3	2		295		295	590	1.5		
	43	Ø6.3	22				103	2266	5.6		
	44	Ø6.3	29				123	3567	8.8		
	45	Ø6.3	19				121	2299	5.7		
Total+10%:									119.6		
V 11	46	Ø10	2	12	354	12	378	756	4.7		
	47	Ø6.3	2	8			85	190	0.5		
	48	Ø5			294	6	300	600		0.9	
	49	Ø5	19				100	1900		3.0	
Total+10%:									5.7	4.3	
V 10	50	Ø10	2	12	853		865	1730	10.9		
	51	Ø12.5	2		565	15	580	1160	11.4		
	52	Ø10	2		380		380	760	4.8		
	53	Ø10	1		330		330	330	2.1		
	54	Ø10	2		380		385	770	4.8		
	55	Ø16	2		340		340	680	10.7		
	56	Ø8	2		395		395	790	3.1		
	57	Ø12.5	1		225		225	225	2.2		
	58	Ø6.3	1		180		180	180	0.4		
	59	Ø10	1		175		175	175	1.1		
	60	Ø6.3	2		127	8	135	270	0.7		
	61	Ø5	2		290		290	580		0.9	
	62	Ø5	2		200		200	400		0.6	
	63	Ø5	2	6	164		170	340		0.5	
	64	Ø5	72				120	8640		13.6	
Total+10%:									57.4	17.2	
V 17	65	Ø10	2	12	574	12	598	1196	7.5		
	66	Ø10	1		415		415	415	2.6		
	67	Ø8	2		135	10	145	290	1.1		
	68	Ø6.3	2	8	132		140	280	0.7		
	69	Ø6.3	1		122	8	130	130	0.3		
	70	Ø5	2		350		350	700		1.1	
	71	Ø5	24				120	2880		4.5	
Total+10%:									13.4	6.2	
									Ø5:	0.0	55.9
									Ø6.3:	30.9	0.0
									Ø8:	11.7	0.0
									Ø10:	104.8	0.0
									Ø12.5:	74.8	0.0
									Ø16:	137.4	0.0
									Ø20:	81.0	0.0
									Total:	440.6	55.9