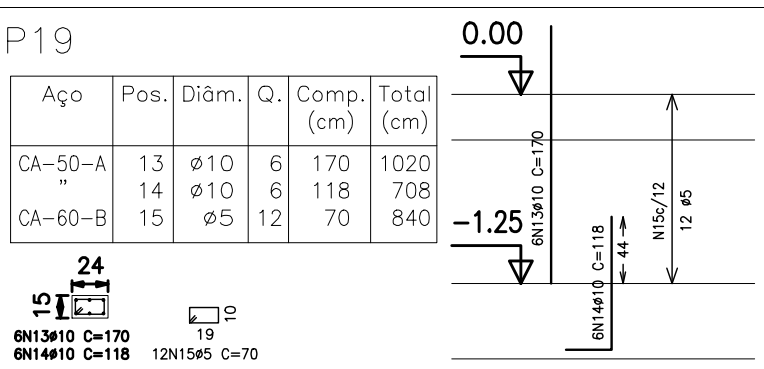
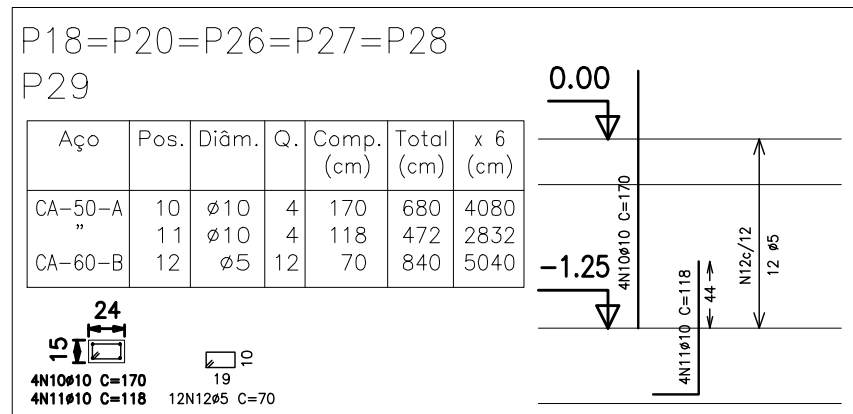
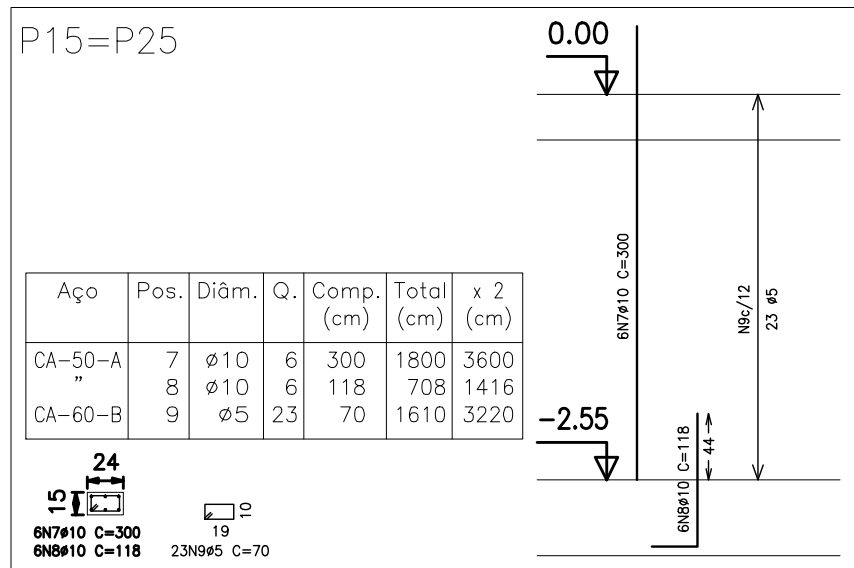
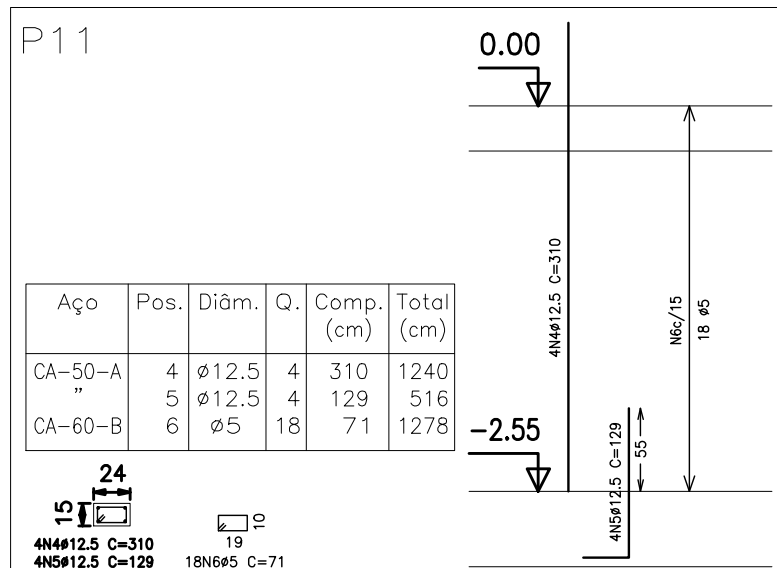
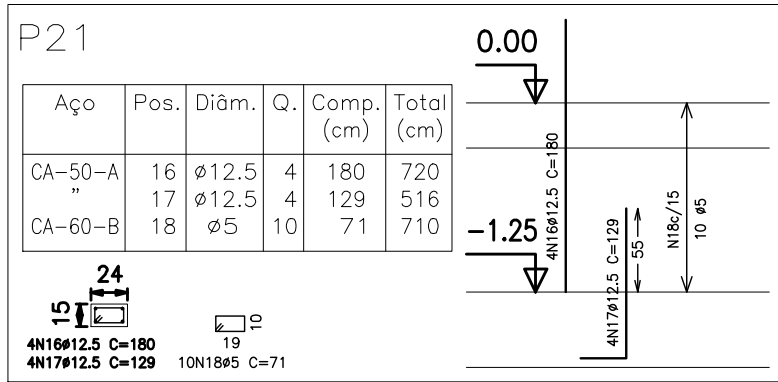
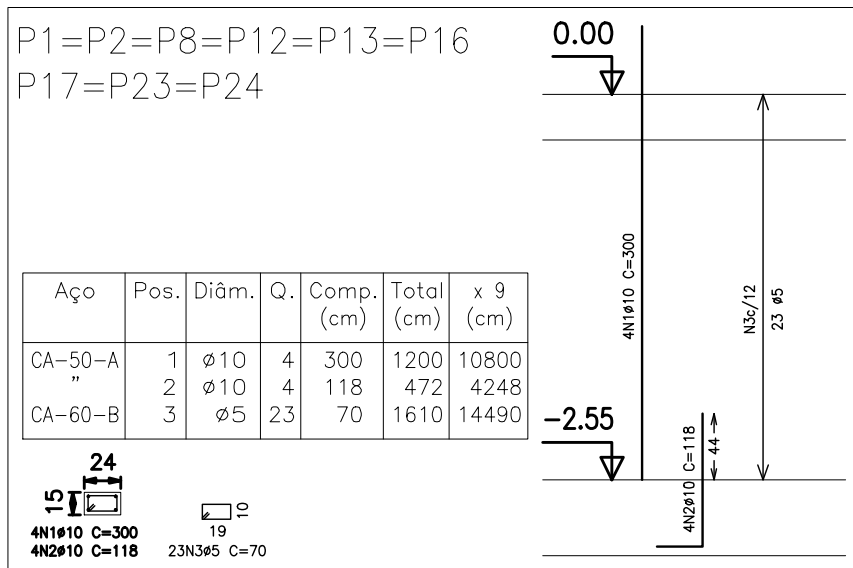


ATENÇÃO
ESTE DESENHO É PROPRIEDADE DA ***** E DO CONTRATANTE
NÃO PODERÁ SER ALTERADO, COPIADO OU USADO SOB NENHUM PRETEXTO
SEM AUTORIZAÇÃO POR ESCRITO.

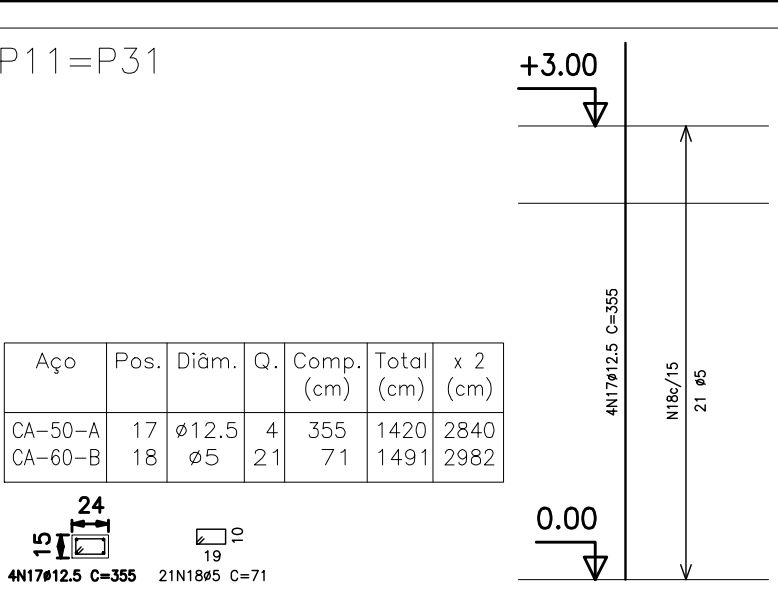
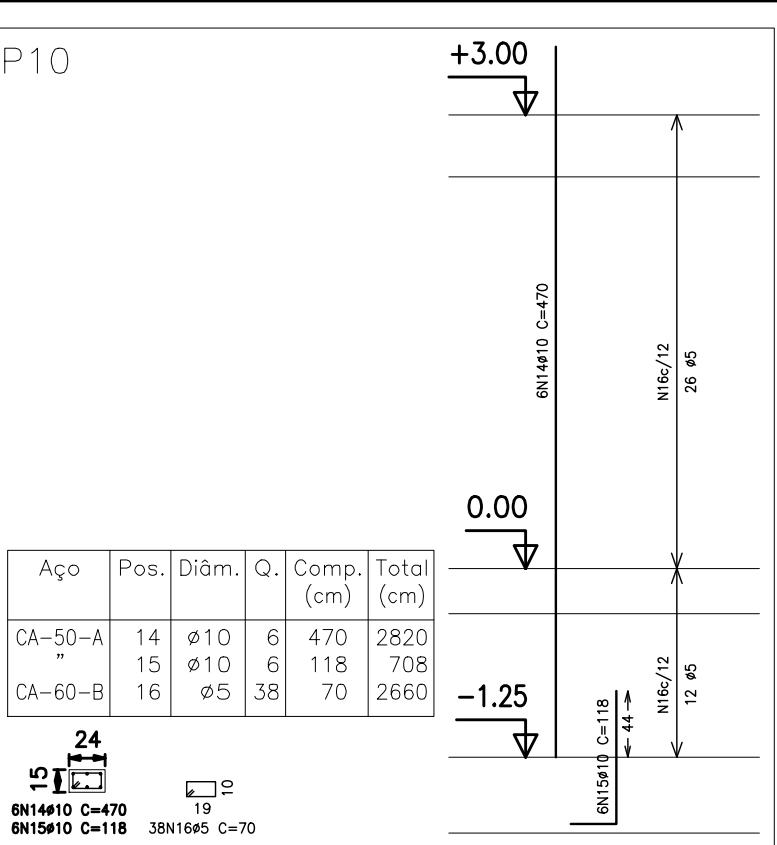
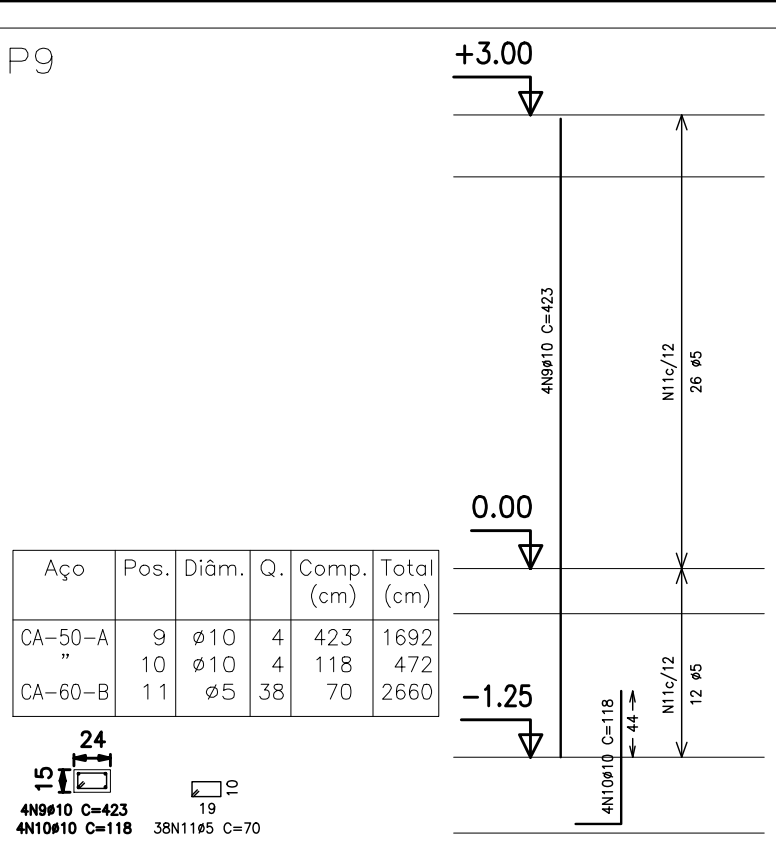
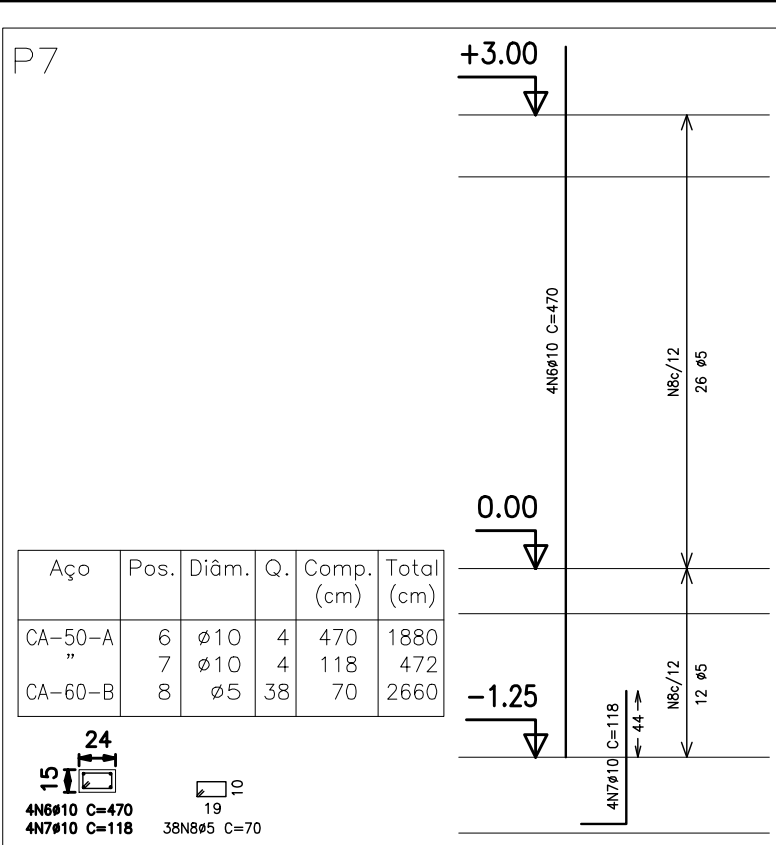
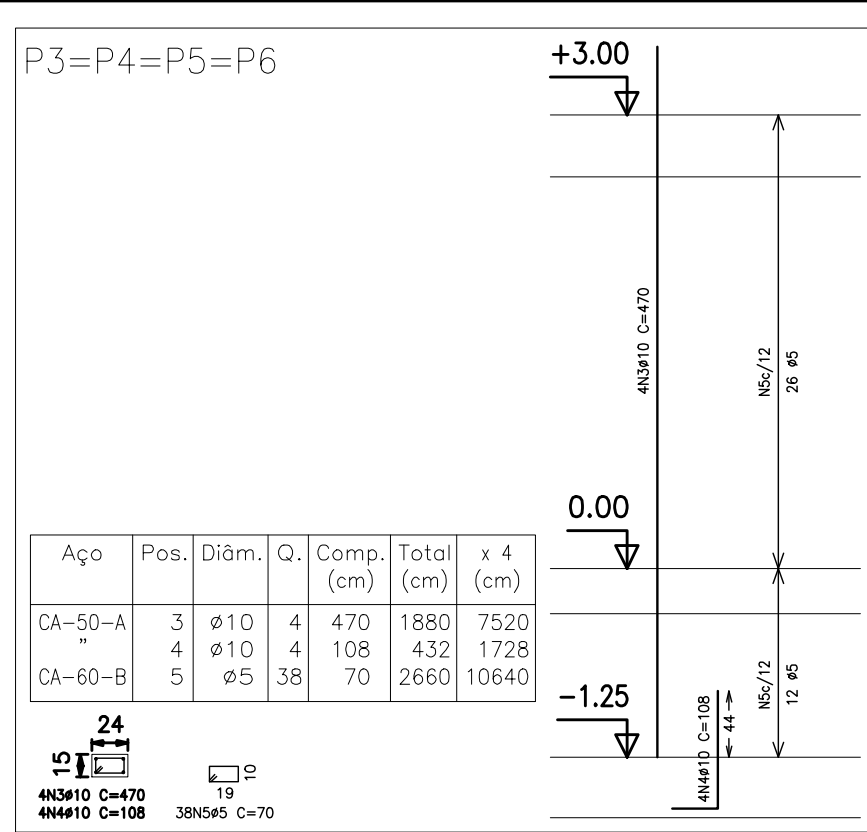
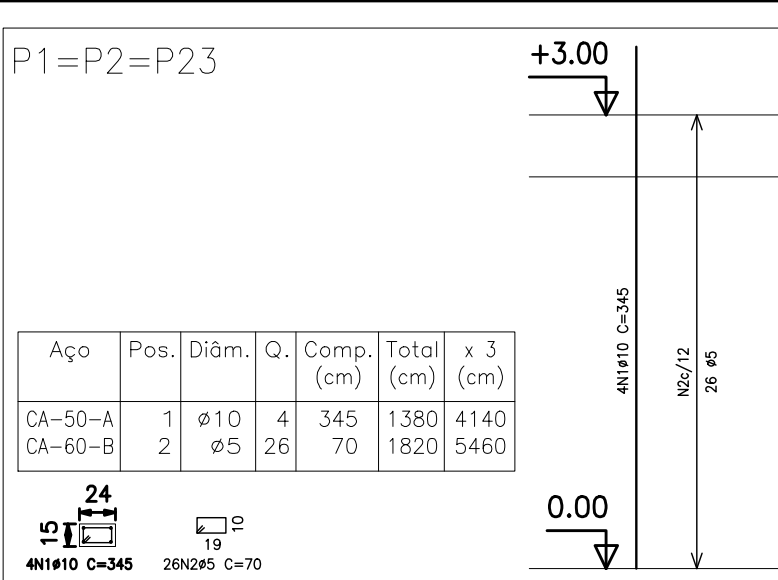


Pilares que terminam em
Baldrame
Betão: C20, em geral
Aço: CA-50-A e CA-60-B
Escala: 1:50

Resumo Aço Baldrame Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	326.3	225	
CA-60-B ø5	59.9	65	290
	296.7	51	51
Total			341

VOLUME DE CONCRETO: 1,27m3

Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P1=P2=P8=P12=P13 P16=P17=P23=P24	1 2 3	ø10 ø10 ø5	4 4 23	30	88 70	300 118 70	1200 472 1610	1200 472 1610	7.5 3.0	2.5
	Total+10%: (x9):									11.6 104.4
P11	4 5 6	ø12.5 ø12.5 ø5	4 4 18	30	99 71	310 129 71	1240 516 1278	1240 516 1278	12.2 5.1	2.0
	Total+10%: (x2):									19.0 2.2
P15=P25	7 8 9	ø10 ø10 ø5	6 6 23	30	88 70	300 118 70	1800 708 1610	1800 708 1610	11.3 4.4	2.5
	Total+10%: (x2):									17.3 34.6
P18=P20=P26=P27 P28=P29	10 11 12	ø10 ø10 ø5	4 4 12	30	88 70	170 118 70	680 472 840	680 472 840	4.3 3.0	1.3
	Total+10%: (x6):									8.0 48.0
P19	13 14 15	ø10 ø10 ø5	6 6 12	30	170 70	170 70	1020 708 840	1020 708 840	6.4 4.4	1.3
	Total+10%:									11.9
P21	16 17 18	ø12.5 ø12.5 ø5	4 4 10	30	180 99 71	180 129 71	720 516 710	720 516 710	7.1 5.1	1.1
	Total+10%:									13.4
P22	19 20 21	ø10 ø10 ø5	4 4 23	30	88 70	300 118 70	1200 472 1610	1200 472 1610	7.5 3.0	2.5
	Total+10%:									11.6 2.8
P31	22 23 24 25 26	ø12.5 ø10 ø10 ø5 ø5	4 4 4 2 23	30	310 98 101 90 71	310 118 131 120 71	1240 472 524 480 1633	1240 472 524 480 1633	7.5 2.1 5.1 3.0	2.6
	Total+10%:									30.6
P33	27 28 29 30 31	ø12.5 ø10 ø10 ø5 ø5	4 4 4 2 12	30	180 170 99 88 71	180 170 99 88 71	720 340 516 236 852	720 340 516 236 852	7.1 2.1 5.1 1.5	1.3
	Total+10%:									17.4
	ø5: ø10: ø12.5: Total:									0.0 226.1 64.8 290.9
	ø10: ø12.5: Total:									0.0 0.0 0.0



Elemento	Pos.	Diâm.	Q.	Pat. (cm)	Recta (cm)	Pat. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P1=P2=P23	1 2	ø10 ø5	4 26	345	70	345 70	1380 1820	1380 1820	8.7	2.9
	Total+10%: (x3):									9.6 28.8
P3=P4=P5=P6	3 4 5	ø10 ø10 ø5	4 4 38	470 78 70	470 108 2660	470 108 2660	1880 432 2660	1880 432 2660	11.8 2.7	4.2
	Total+10%: (x4):									16.0 64.0
P7	6 7 8	ø10 ø10 ø5	4 4 38	470 78 70	470 118 2660	470 118 2660	1880 472 2660	1880 472 2660	11.8 3.0	4.2
	Total+10%:									16.3
P9	9 10 11	ø10 ø10 ø5	4 4 38	422 88 70	422 118 2660	422 118 2660	1698 472 2660	1698 472 2660	10.6 3.0	4.2
	Total+10%:									15.0
P16	12 13	ø10 ø5	4 26	298 70	298 70	298 70	1192 1820	1192 1820	7.5	2.9
	Total+10%:									8.3
P10	14 15 16	ø10 ø10 ø5	6 6 38	470 88 70	470 118 2660	470 118 2660	2820 708 2660	2820 708 2660	17.7 4.4	4.2
	Total+10%:									24.3
P11=P31	17 18	ø12.5 ø5	4 2	355 71	355 71	355 71	1420 1491	1420 1491	13.9	2.3
	Total+10%: (x2):									15.3 30.6
P14=P30	19 20 21	ø10 ø10 ø5	4 4 38	470 88 70	470 118 2660	470 118 2660	1880 472 2660	1880 472 2660	11.8 3.0	4.2
	Total+10%: (x2):									16.3 32.6
P12	22 23	ø10 ø5	4 26	298 70	298 70	298 70	1192 1820	1192 1820	7.5	2.9
	Total+10%:									8.3
P15	24 25	ø10 ø5	6 26	345 70	345 70	345 70	2070 1820	2070 1820	13.0	2.9
	Total+10%:									14.3
P32	26 27 28	ø12.5 ø12.5 ø5	4 4 3	480 129 71	1920 516 2201	480 129 71	1920 516 2201	1920 516 2201	18.8 5.1	3.5
	Total+10%:									26.3
P33	29 30 31	ø10 ø10 ø5	6 6 26	345 70	345 70	345 70	2070 1820	2070 1820	13.0	2.9
	Total+10%:									14.3
P22	32 33	ø10 ø5	4 26	345 70	345 70	345 70	1380 1820	1380 1820	8.7	2.9
	Total+10%:									9.6
	ø5: ø10: ø12.5: Total:									0.0 235.8 56.9 292.7
	ø10: ø12.5: Total:									0.0 0.0 0.0

