

V 2
Escala 1:50

Technical drawing of a beam cross-section and elevation.

Cross-section (Top):

- Top flange: V 20
- Bottom flange: V 26
- Web: 2N19x8
- Total width: 393
- Flange width: 20
- Web height: 2N19x8 C=409

Elevation (Bottom):

- Central section: 2N18x10 C=413
- End sections: 28x1N20x5c/13
- Total length: 409
- Central section length: 352
- End section length: 352
- Support: A

V 9

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P16

497

P17

2N

1N49#10 C=130

1N45#10 C=145

100

45

V-116

20x30

A

95

1N40#8 C=295

2N37#12,5 C=525

37x1N50#5C/13

478

86

16

Technical drawing of a bridge structure, showing a plan view and a cross-section.

Plan View (Top):

- Scale: Escala 1:50
- Bridge Identification: V-122, 20x30
- Dimensions: 318 (span), 65 (pier width), 100 (pier width), 165 (pier width)
- Labels: P23, P24, P25
- Other labels: 2N57#1, 2N52#10, 36x1N5

Cross-section (Bottom):

- Bridge Identification: V-122, 20x30
- Dimensions: 14 (pier width), 290 (span), 1515 (pier width)
- Labels: P23, P24, P25
- Other labels: 2N53#1, 2N52#10, 36x1N5

Technical drawing of a mechanical part, showing a side view and a cross-section view.

Side View Dimensions:

- Total length: 330
- Section P4 is located at the left end.
- Section V-104 is located at the right end.
- Section V-32 is located at the right end.
- Distance from P4 to V-104: 2N12±8 C=349
- Distance from V-104 to V-32: 1N136.3 C=85
- Section A is located at the right end.
- Distance from P4 to A: 2N11±8 C=347
- Distance from A to V-32: 22xN1145c/13
- Distance from P4 to V-32: 278
- Distance from P4 to A: 32
- Distance from A to V-32: 20

Cross-section View Dimensions:

- Section A is a rectangular cross-section.
- Width: 20
- Height: 30
- Section V-32 is a rectangular cross-section.
- Width: 17
- Height: 27

Material and Finish:

- Material: 22N1445 C=98
- Finish: Corte A Escala 1:2

V 8
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Corte A
Escala 1:20

Corte A
Escala 1:20

196
142
V-115
(20x30)
A
A
20
17
20
156
17
17x5 C=98
12x1N3565/13
2N3368 C=212
12N3565 C=98

Escala: 1:50

202 363 363

P38 P39 P33 P34 P26 P27

2N60#8 C=582

V-161 V-149 V-162 V-150 20x30 20x30

1156 2N59#8 C=582 2N59#8 C=582

12x1N61#5c/13 25x1N61#5c/13

V 28
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Corte A
Escala 1:20

282 173

P7 P4 V 1

2N76#8 C=474

1N77#6.3 C=110

55 55

V-156 20x30 A

V-157 20x30

2N75#8 C=472

21x1N78#5c/13 13x1N78#5c/13

13 263 66 165 2

34N78#5 C=98

Technical drawing of a mechanical part, showing a side view and a cross-section A-A.

Side View:

- Overall length: 455
- Distance from center to end: 2N63±10 C=478
- Central section: V-163 (20x30)
- Section A-A is indicated.
- End view dimensions: 32, 392, 31
- Bottom dimension: 31x1N64±5C/13

Cross-section A-A:

- Dimensions: 30x20
- Material: 31N64±5 C=98

Technical drawing of a beam cross-section and elevation. The top part shows a cross-section of a beam with a total width of 360 mm, divided into two 180 mm sections. The bottom part shows an elevation of the beam with a total length of 340 mm, divided into two 170 mm sections. The cross-section is labeled 'V-155' and '20x30'. The elevation is labeled 'V-155' and '20x30'. The cross-section is labeled 'V-155' and '20x30'. The elevation is labeled 'V-155' and '20x30'.

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Escala 1:50

Diagram showing the reinforcement layout for a slab (V-109 to V-114) with dimensions and reinforcement details. The drawing includes a top view and a cross-section A-A.

Top View Details:

- Reinforcement: 2N26#10 C=1200, 1N30#10 C=130, 1N29#8 C=150, 2N27#8 C=265, 1N28#10 C=150, 1N28#10 C=150, 1N31#10 C=120, 2N23#12.5 C=525, 1N25#10 C=250, 2N24#8 C=280, 2N22#10 C=775.
- Dimensions: 497, 224, 371, 410, 275, 478, 100, 50, 140, 125, 95, 55, 80, 93, 458, 13.
- Section A-A: 16, 102, 363, 66, 398, 66, 263, 66, 458, 13.

Corte A

Escala 1:20

169N32#5 C=98

[illegible]

Technical drawing of a reinforced concrete slab (V.33) showing a longitudinal section and cross-sections.

Longitudinal Section:

- Reinforcement bars: 1N56#10 C=155, 1N54#6.3 C=180, 2N57#10 C=1200 2ªcamada, 2N51#10 C=1200.
- Stirrups: V-124 (20x30), V-125 (20x30), V-126 (20x30), V-127 (20x30), V-164 (20x30).
- Section cuts: A-A.
- Dimensions: 100, 55, 95, 85, 303, 13, 96, 66, 263, 210, 443, 102, 403, 283, 13.

Corte A (Escala 1:20):

- Dimensions: 30, 20, 27, 17.
- Reinforcement: 168N5#5 C=98.

Corte A (Escala 1:20):

- Dimensions: 30, 20, 27, 17.
- Reinforcement: 12N7#5 C=98.

V 29
Escala 1:50

V 7

190

V 5

2N66#8 C=207

94

112

V-158

20x30

A

A

50

20

27

17

12N67#5 C=98

20

150

20

2N65#8 C=207

12x1N67#5c/13

V 33
Escala 1:50

P40 V 12

205

2N73ø8 C=210

V-164
20x30

A

B

2N72ø8 C=222

12x1N74ø5c/13

32 154 20

Corte A
Escala 1:20

30 20 27 17

12N74ø5 C=98

Elemento	Pos.	Diam.	Q.	Do b (cm)	Re ta (cm)	Do b (cm)	Comp. (cm)	Tota (cm)	CA-50-A (kg)	CA-60-B (kg)	
V 1	1	ø8	2	10	837	10	857	1714	6.7		
	2	ø8	1		320		270	270	1.1		
	3	ø8	2	10	837	19	866	1732	6.8		
	4	ø6.3	1		165		165	165	0.4		
	5	ø6.3	1		102	8	110	110	0.3		
	6	ø5	6				98	5978	16.8	9.4	
Total+10%:									10.3		
V 2	7	ø10	2	12	389	12	413	826	5.2		
	8	ø10	1		510		320	320	2.0		
	9	ø8	2	11	389	10	410	820	3.2		
	10	ø5	28				98	2744		4.3	
	Total+10%:									11.4	4.7
V 3	11	ø8	2	10	327	10	347	694	2.7		
	12	ø8	2	12	327	10	349	698	2.7		
	13	ø6.3	1		77	8	85	85	0.2		
	14	ø5	22				98	2156		3.4	
	Total+10%:									6.2	3.7
V 5	15	ø8	2	10	327	10	347	694	2.7		
	16	ø8	2	10	327	11	348	698	2.7		
	17	ø5	22				98	2156		3.4	
	Total+10%:									5.9	3.7
V 6	18	ø10	2	12	389	12	413	826	5.2		
	19	ø8	2	10	389	10	409	818	3.2		
	20	ø5	28				98	2744		4.3	
	Total+10%:									9.2	4.7
V 7	21	ø10	2		1025		1025	2050	12.9		
	22	ø10	2		763	12	775	1550	9.7		
	23	ø12.5	2	15	510		525	1050	10.3		
	24	ø8	2		280		280	560	2.2		
	25	ø10	1		250		250	250	1.6		
	26	ø10	4	20	1180		1200	4800	30.1		
	27	ø8	2		265		265	530	2.1		
	28	ø10	2		150		150	300	1.3		
	29	ø8	1		150		150	150	0.6		
	30	ø10	1	15	115		130	130	0.8		
	31	ø10	1		105	15	120	120	0.8		
	32	ø5	169				98	16562		26.0	
	Total+10%:									80.3	28.6
V 8	33	ø8	2	10	192	10	212	424	1.7		
	34	ø8	2	10	192	10	212	424	1.7		
	35	ø5	12				98	1176		1.8	
	Total+10%:									3.7	2.0
V 9	36	ø10	2		1025		1025	2050	12.9		
	37	ø12.5	2	15	510		525	1050	10.3		
	38	ø12.5	2		490	15	505	1010	9.9		
	39	ø10	2		295		295	590	3.7		
	40	ø8	1		295		295	295	1.2		
	41	ø6.3	1		280		280	280	1.0		
	42	ø10	1		280		280	280	1.8		
	43	ø12.5	1		180		180	180	1.8		
	44	ø10	1		175		175	175	1.1		
	45	ø10	4	20	1180		1200	4800	30.1		
	46	ø10	1		145		145	145	0.9		
	47	ø8	1		140		140	140	0.9		
	48	ø10	1		120	20	140	140	0.9		
	49	ø10	1	18	112		130	130	0.8		
50	ø5	169				98	16562		26.0		
Total+10%:									84.3	28.6	
V 10	51	ø10	2		1188	12	1200	2400	15.1		
	52	ø10	2	12	1098		1110	2220	13.9		
	53	ø8	2		295		295	590	2.3		
	54	ø6.3	1		180		180	180	0.4		
	55	ø8	1		165		165	165	0.6		
	56	ø10	1		155		155	155	1.0		
	57	ø10	4		1188	12	1200	4800	30.1		
	58	ø5	168				98	16464		25.8	
	Total+10%:									69.7	28.4
V 25=V 31	59	ø8	2	10	562	10	582	1164	4.6		
	60	ø8	2	10	562	10	582	1164	4.6		
	61	ø5	37				98	3626		5.7	
Total+10%:									10.1		
V 32	62	ø10	2	12	452	12	476	952	6.0	6.3	
	63	ø10	2	13	452	13	478	956	6.0	20.2	
	64	ø5	31				98	3038		12.6	
Total+10%:									13.2	5.3	
V 29	65	ø8	2	10	187	10	207	414	1.6		
	66	ø8	2	10	187	10	207	414	1.6		
	67	ø5	12				98	1176		1.8	
Total+10%:									3.5	2.0	
V 27	68	ø10	2	12	377	12	401	802	5.0		
	69	ø6.3	1		240		240	240	0.6		
	70	ø8	2	10	377	10	397	794	3.1		
	71	ø5	27				98	2646		4.2	
Total+10%:									9.6	4.6	
V 33	72	ø8	2	10	202	10	222	444	1.7		
	73	ø8	2	12	198		210	420	1.6		
	74	ø5	12				98	1176		1.8	
Total+10%:									3.6	2.0	
V 28	75	ø8	2	10	452	10	472	944	3.7		
	76	ø8	2	10	452	12	474	948	3.7		
	77	ø6.3	1		110		110	110	0.3		
	78	ø5	34				98	3332		5.2	
Total+10%:									8.5	5.7	
	ø5:									0.0	146.9
	ø6.3:									3.3	0.0
	ø8:									87.9	0.0
	ø10:									219.4	0.0
	ø12.5:									35.5	0.0
Total:									346.1	146.9	