

Technical drawing of a reinforced concrete beam cross-section. The drawing shows a rectangular beam with a width of 20 cm and a height of 21 cm. The top reinforcement consists of 4 bars (2 on each side) with diameter 8 mm, labeled '2 Ø 8'. The bottom reinforcement consists of 2 bars with diameter 8 mm, labeled '2 N2 Ø 8'. The total length of the beam is 650 cm. The drawing includes a section line 'A-A' and a scale of 1/30. The beam is labeled 'P10' and 'P11' at the ends.

The drawing shows a reinforced concrete slab with the following details:

- Top View:**
  - Overall width: 15/30
  - Reinforcement: 20 Ø 4 C215 (299) with spacing 10.
  - Dimensions: 1 Ø 6.3, 2 Ø 10, 2 Ø 6.
  - Supports: P1, P2, P3.
- Bottom View:**
  - Reinforcement: 2 N1 Ø C=695, 1 N3 Ø 6 C=90, 1 N3 Ø 6 C=90.
  - Dimensions: 653, 10, 652, 41.

Technical drawing of a roof plan showing two roof sections, P10 and P11, with various dimensions and annotations.

**Section P10:**

- Top edge: 20 Ø 8 2 Ø 15 14 (239) + 20 Ø 8 4 Ø 15 14 (239)
- Bottom edge: 2 Ø 8 2 Ø 8 + 2 Ø 10 2 Ø 8
- Internal dimension: 2 Ø 8
- Section label: P10

**Section P11:**

- Top edge: 184 2 N1 Ø 8 C=205
- Bottom edge: 2 N2 Ø 1 Ø=380
- Internal dimension: 180
- Section label: P11

**Other Dimensions and Annotations:**

- Top left: 15/30
- Top right: 15/30
- Bottom left: 19
- Bottom center: 652
- Bottom right: 8=690
- Section labels: A, A

Technical drawing of a bridge structure showing two cross-sections, P1 and P2. The drawing includes dimensions for various components: 20 Ø 4 C215, N4 (299), 2 Ø 8, 2 Ø 8 + 2 Ø 8, 1 Ø 30, 1, 2 Ø 10, 2 Ø 10 + 2 Ø 8, 2 Ø 8, 2 Ø 8, 184, 2 N1 Ø C=205, 180, 2 N2 Ø 1 Ø=380, 652, 2 N3 Ø C=690, and 184. The drawing is labeled with 'P1' and 'P2' and includes a scale bar at the bottom.

Technical drawing of a reinforced concrete slab (L.1) showing top and bottom views with dimensions and reinforcement details.

**Top View:**

- Overall width: 15.70
- Overall length: 10.40
- Reinforcement: 3 Ø 10 (top), 3 Ø 10 (bottom)
- Dimensions: 18 Ø 4 C717.5, 18 Ø 4 C717.5, 18 Ø 4 C717.5, 18 Ø 4 C717.5
- Section lines: A-A, B-B
- Labels: P1, P2, P

**Bottom View:**

- Overall width: 15.70
- Overall length: 10.40
- Reinforcement: 2 N1 Ø 10, 1 N2 Ø 10, 1 N3 Ø 10, 1 N4 Ø 10, 1 N5 Ø 10, 1 N6 Ø 10
- Dimensions: 124, 119, 76, 41, 652, 652
- Labels: C=155, C=150, C=170, C=170, C=170, C=170
- Section lines: A-A, B-B
- Labels: P1, P2, P

The drawing shows a mechanical part with two views and a cross-section labeled 'Corte A'.

**Top View:** A rectangular part with a total width of 150 mm and a total height of 40 mm. It features a central slot with a width of 100 mm and a depth of 16 mm. The slot is positioned 19 mm from the top edge and 16 mm from the bottom edge. The part is labeled with 'P19' on the left and 'P20' on the right. A section line 'A-A' is shown with arrows pointing towards the part.

**Bottom View:** A rectangular part with a total width of 150 mm and a total height of 40 mm. It features a central slot with a width of 100 mm and a depth of 16 mm. The slot is positioned 19 mm from the top edge and 16 mm from the bottom edge. The part is labeled with 'P19' on the left and 'P20' on the right. A section line 'A-A' is shown with arrows pointing towards the part.

**Corte A:** A cross-section of the part showing a T-shaped profile. The top flange has a width of 100 mm and a thickness of 16 mm. The stem has a width of 34 mm and a height of 32 mm. The part is labeled with '19 N4 Ø 6 .C8102' on the left and '19 N4 Ø 6 .C8102' on the right. A section line 'A-A' is shown with arrows pointing towards the part.

Technical drawing of a mechanical part, showing two views and a cross-section.

**Top View:**

- Overall length: 413
- End flange width: 31
- Central hole diameter: 15/40
- Central hole specification: 22 N3 Ø 4 .C217.5
- Side holes diameter: 3 Ø 10

**Bottom View:**

- Overall length: 413
- End flange width: 31
- Central hole diameter: 10
- Central hole specification: 22 N3 Ø 4 .C217.5
- Side holes diameter: 3 Ø 10

**Corte A:**

- Top flange width: 34
- Central hole diameter: 22 N3 Ø 4 .C217.5

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

**Side View Dimensions and Specifications:**

- Top section: 26 Ø 4 .C215 (130)
- Bottom section: 26 Ø 4 .C881
- Lengths: 12.5, 2, 12.5, 3, 1, 5
- Internal features: 2 x 2 Ø 4, 2 x 2 Ø 4
- Material: P17, P18
- Section A-A: 26 N4 Ø 4 .C881 (1 Ø 2 a C A M)
- Other dimensions: 134, 134, 2 N1 Ø 1 2.5, C=455, 1 N2 Ø 1 2.5, C=155, (costela), 2x2 N5 Ø 4 .C8414, 2 N3 Ø 1 C=455

**Corte A**

Dimensions: 24, 10

Material: 26 N4 Ø 4 .C881

Section A-A: 26 N4 Ø 4 .C881 (1 Ø 2 a C A M)

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Technical drawing of a mechanical part, showing three views: front, top, and side. The drawing includes dimensions and section lines.

**Front View (Top):** Shows a rectangular part with a central slot. Dimensions include 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Top View (Middle):** Shows a rectangular part with a central slot. Dimensions include 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Side View (Bottom):** Shows a rectangular part with a central slot. Dimensions include 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Section Line A-A:** Indicated by a dashed line with arrows pointing to the section.

**Section A-A:** A detailed view of the section, showing a rectangular part with a central slot. Dimensions include 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Dimensions:** 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Section Line A-A:** Indicated by a dashed line with arrows pointing to the section.

**Section A-A:** A detailed view of the section, showing a rectangular part with a central slot. Dimensions include 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Dimensions:** 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Section Line A-A:** Indicated by a dashed line with arrows pointing to the section.

**Section A-A:** A detailed view of the section, showing a rectangular part with a central slot. Dimensions include 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

**Dimensions:** 26 Ø 4, N4, 130, 2 Ø 8, 2 Ø 5, 2 Ø 8, 2 Ø 10, 99, 2 N2 Ø C=120, 79, 2 N1 Ø C=265, 5, 413, 2 N3 Ø 1, Ø=445.

		A	Ç	Ø	POS	BIT (mm)		QUANT	COMPRIMENTO UNIT (cm)		TOTAL (cm)
VB1		50A	1		8		4	205		820	
		50A	2		10		2	380		760	
		50A	3		8		2	690		1380	
		60B	4		4, 2		40	81		3240	
VB2		50A	1		8		4	205		820	
		50A	2		10		2	380		760	
		50A	3		8		2	690		1380	
		60B	4		4, 2		40	81		3240	
VB6		60B	1		5		2	265		530	
		50A	2		8		4	120		480	
		50A	3		10		2	445		890	
		60B	4		4, 2		26	81		2106	
VC1		50A	1		8		2	695		1390	
		50A	2		8		2	690		1380	
		60B	3		4, 2		40	81		3240	
VC2		50A	1		8		2	695		1390	
		50A	2		8		2	690		1380	
		60B	3		4, 2		40	81		3240	
VC8		50A	1		8		2	695		1390	
		50A	2		8		2	690		1380	
		60B	3		4, 2		40	81		3240	
	50A	1		8		4	455		1820		
	60B	2		4, 2		26	81		2106		
VR1		50A	1		10		2	695		1390	
		50A	2		8		2	690		1380	
		50A	3		6, 3		2	90		180	
		60B	4		4, 2		40	81		3240	
VR7		50A	1		16		2	475		950	
		50A	2		10		2	445		890	
		50A	3		10		1	260		260	
		50A	4		6, 3		19	102		1938	
VR9		50A	1		10		3	475		1425	
		50A	2		10		2	445		890	
		60B	3		4, 2		22	101		2222	
VS1		50A	1		10		2	715		1430	
		50A	2		10		1	155		155	
		50A	3		10		1	170		170	
		50A	4		10		1	150		150	
		50A	5		10		2	710		1420	
		50A	6		6, 3		2	90		180	
		60B	7		4, 2		36	101		3636	
VS6		50A	1		16		2	455		910	
		50A	2		10		2	455		910	
		50A	3		6, 3		2	90		180	
		60B	4		4, 2		26	81		2106	
		60B	5		5		4	414		1656	
		60B	6		4		4	414		1656	
VS7		50A	1		16		2	455		910	
		50A	2		10		2	450		900	
		50A	3		4, 2		26	81		2106	
		60B	4		4, 2		4	414		1656	
VS8		50A	1		12, 5		2	455		910	
		50A	2		12, 5		2	155		310	
		50A	3		10		2	455		910	
		60B	4		4, 2		26	81		2106	
		60B	5		4, 2		4	414		1656	
		60B	6		4		4	414		1656	
VS9		50A	1		10		4	455		1820	
		50A	2		10		4	135		545	
		60B	3		4, 2		26	81		2106	
		60B	4		3, 4, 2		4	414		1656	
		60B	5		4		4	414		1656	

RESUMO AÇO CA 50 -			
AÇO Ø	BIT (mm)	COMPR (m)	PESO (kg)
60B	4.2	397	43
60B	5	22	3
50A	6.3	25	6
50A	8	136	54
50A	10	157	97
50A	12.5	12	12
50A	16	28	44
Peso Total	60B =		47 kg
Peso Total	50A =		212 kg

C 0							CEBA - N.º	
CLIENTE							DIST. N.º	
UNEP CCP							06/07	
CEBA								
BLOCO DE SALAS								
BIOLOGIA/GEOGRAFIA/MATEMÁTICA/PÓS-GRADUAÇÃO							06/07	
TÍTULO								
PROJETO ESTRUTURAL								
ABRIGO DOS RESERVATÓRIOS							REV. N.º	
—ARMAÇÃO: VIGAS								
DATA	25/10/2017	FOLHA	1/50	POR	25 MPA	DESENHO	VERSÃO	SIT. Nº
							LINCOLN	