

Technical drawing of a reinforced concrete slab (L.13) showing plan and section views.

Plan View Details:

- Top reinforcement: 4 N10 Ø 10 (2 Ø 20CAM), 2 N2 Ø 12.5, C=470, 1 N3 Ø 12.5, C=280.
- Bottom reinforcement: 4 N10 Ø 10 (2 Ø 20CAM), 2 N2 Ø 12.5, C=470, 1 N3 Ø 12.5, C=280.
- Dimensions: 218, 180, 232, 120, 723, 275, 400, 275, 400.
- Section lines: A-A, B-B.

Section A-A Details:

- Reinforcement: 4 N10 Ø 10, 2 Ø 20CAM, 2 N2 Ø 12.5, C=470, 1 N3 Ø 12.5, C=280.
- Dimensions: 218, 180, 232, 120, 723, 275, 400, 275, 400.

Section B-B Details:

- Reinforcement: 4 N10 Ø 10, 2 Ø 20CAM, 2 N2 Ø 12.5, C=470, 1 N3 Ø 12.5, C=280.
- Dimensions: 218, 180, 232, 120, 723, 275, 400, 275, 400.

Technical drawing of a steel beam-column joint (Corte A) showing a plan view and a section view.

Plan View (Top):

- Beam length: 4300 mm.
- Reinforcement bars: 3 N1 \varnothing 10 (C=215), 2 N4 \varnothing 5 (C=450), 1 N2 \varnothing 12.5 (C=470), 2 N3 \varnothing 12.5 (C=800).
- Dimensions: 180 mm, 142 mm, 130 mm, 75 mm, 14 mm.
- Labels: P32, P34, A/A.

Section View (Bottom):

- Beam cross-section: 300 mm x 400 mm.
- Reinforcement bars: 3 N1 \varnothing 10 (C=215), 2 N4 \varnothing 5 (C=450), 1 N2 \varnothing 12.5 (C=470), 2 N3 \varnothing 12.5 (C=800).
- Dimensions: 180 mm, 142 mm, 130 mm, 75 mm, 14 mm.
- Labels: P32, P34, A/A.

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V102

Corte A

Reinforcement details include:

- Top view: 2 # 8, 2 # 5, 3 # 10, 2 # 5, 3 # 12.5, 3 # 12.5, 2 # 12.5, 3 # 8.
- Side view: 94, N2 # 8 C=115, 59, 2 R1 # 5 C=260, 169, 2 N3 # 12.5 C=395, 79, 1 N4 # 12.5 C=190, 159, 3 N5 # 8 C=180, 79, 49 N8 # 5 C=79, 39, 1 N7 # 10 C=270, 822, 2 N6 # 10 C=850.

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Technical drawing of a reinforced concrete slab (Losa) showing plan and section views.

Plan View:

- Overall dimensions: 14/30 (width) and 14/30 (length).
- Reinforcement details for the top and bottom, with bars labeled P38, P28, P24, and P17.
- Reinforcement details for the edge of the slab, showing the 2# bars and the 2# bars.

Section View (Corte A):

- Shows the slab thickness and the reinforcement layout, including the 2# bars and the 2# bars.
- Reinforcement details for the edge of the slab, showing the 2# bars and the 2# bars.

Technical drawings of three types of door profiles: P42, V208, V209, P43, and P101. Each drawing includes a top view with dimensions and a cross-section 'Corte A' showing internal structure and dimensions.

Profile P42 / V208:

- Top view: Total width 1430 mm. Distance between mounting holes 1075 mm. Mounting hole diameter $\varnothing 13$ C/16. Profile width 63 mm. Internal hole diameter $\varnothing 8$. End view shows a 172 mm wide section with 2 N1 $\varnothing 6.3$ holes and C=210.
- Corte A: Shows a 24 mm thick profile with a 6 mm internal channel. Dimensions: 2 $\varnothing 6.3$, 2 $\varnothing 8$.

Profile V209 / P43:

- Top view: Total width 1430 mm. Distance between mounting holes 1075 mm. Mounting hole diameter $\varnothing 13$ C/16. Profile width 63 mm. Internal hole diameter $\varnothing 8$. End view shows a 171 mm wide section with 2 N1 $\varnothing 6.3$ holes and C=220.
- Corte A: Shows a 24 mm thick profile with a 6 mm internal channel. Dimensions: 2 $\varnothing 6.3$, 2 $\varnothing 8$.

Profile P101:

- Top view: Total width 1420 mm. Distance between mounting holes 1075 mm. Mounting hole diameter $\varnothing 13$ C/16. Profile width 63 mm. Internal hole diameter $\varnothing 8$. End view shows a 170 mm wide section with 2 N2 $\varnothing 8$ holes and C=210.
- Corte A: Shows a 24 mm thick profile with a 6 mm internal channel. Dimensions: 2 $\varnothing 6.3$, 2 $\varnothing 8$.

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Technical drawings of the bridge structure, including side and cross-section views.

Side View (Left): Shows the bridge deck with a total width of 10.0 m (ø 160). The deck is supported by two piers, P44 and V208. The deck thickness is 2.6 m. The pier height is 2.8 m. The pier width is 2.0 m. The pier is labeled P44 and V208.

Side View (Right): Shows the bridge deck with a total width of 10.0 m (ø 160). The deck is supported by two piers, P47 and V209. The deck thickness is 2.6 m. The pier height is 2.8 m. The pier width is 2.0 m. The pier is labeled P47 and V209.

Corte A (Left): A cross-section of the bridge deck. The total width is 10.0 m (ø 160). The deck thickness is 2.6 m. The pier height is 2.8 m. The pier width is 2.0 m. The pier is labeled P44 and V208.

Corte A (Right): A cross-section of the bridge deck. The total width is 10.0 m (ø 160). The deck thickness is 2.6 m. The pier height is 2.8 m. The pier width is 2.0 m. The pier is labeled P44 and V209.

Bottom View (Left): Shows the bridge deck with a total width of 10.0 m (ø 160). The deck is supported by two piers, P44 and V208. The deck thickness is 2.6 m. The pier height is 2.8 m. The pier width is 2.0 m. The pier is labeled P44 and V208.

Bottom View (Right): Shows the bridge deck with a total width of 10.0 m (ø 160). The deck is supported by two piers, P47 and V209. The deck thickness is 2.6 m. The pier height is 2.8 m. The pier width is 2.0 m. The pier is labeled P47 and V209.

Technical drawings of the V209 and P47 components, showing top and side views with dimensions.

V209 (Top View):

- Overall width: $\frac{N3}{2} \pm 0.16$
- Overall height: 10 ± 0.140
- Internal width: 2 ± 6.3
- Internal height: 2 ± 8

P47 (Top View):

- Overall width: $\frac{N3}{2} \pm 0.16$
- Overall height: 10 ± 0.140
- Internal width: 2 ± 6.3
- Internal height: 2 ± 8

V209 (Side View):

- Overall width: 172
- Overall height: $2 \pm 11 \pm 6.3$
- Internal width: $C=110$

P47 (Side View):

- Overall width: 170
- Overall height: $2 \pm 12 \pm 6.3$
- Internal width: $C=210$

V209 (Bottom View):

- Overall width: 10 ± 0.16
- Overall height: $2 \pm 11 \pm 6.3$
- Internal width: $C=110$

P47 (Bottom View):

- Overall width: 10 ± 0.16
- Overall height: $2 \pm 12 \pm 6.3$
- Internal width: $C=210$

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Technical drawing of a reinforced concrete slab (Laje) showing dimensions, reinforcement details, and a cross-section (Corte A).

Dimensions:

- Overall width: 16' 5" (3931)
- Overall length: 20' 8" (5091)
- Reinforcement spacing: 2 # 8

Reinforcement Details:

- Top reinforcement: 2 # 10 @ 8" C=690
- Bottom reinforcement: 2 # 10 @ 8" C=690
- Vertical reinforcement: 2 # 10 @ 8" C=690
- Horizontal reinforcement: 2 # 10 @ 8" C=690

Corte A:

36 N4 @ 5" C=89

Reinforcement details for Corte A:

- Top reinforcement: 2 # 8
- Bottom reinforcement: 2 # 8
- Vertical reinforcement: 2 # 8
- Horizontal reinforcement: 2 # 8

Reinforcement details for the slab:

- Top reinforcement: 2 # 10 @ 8" C=690
- Bottom reinforcement: 2 # 10 @ 8" C=690
- Vertical reinforcement: 2 # 10 @ 8" C=690
- Horizontal reinforcement: 2 # 10 @ 8" C=690

RESUMO AÇO CA 50-60			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60B	5	594	91
50A	6,3	131	32
50A	8	250	99
50A	10	325	201
50A	12,5	51	49
50A	16	23	36
Peso Total	60B =		91 kg
Peso Total	50A =		417 kg

DIREITOS RESERVADOS (LEI FEDERAL 9.610 DE 19/12/1998).