

Technical drawing of a rectangular plate, labeled "SEÇÃO A-A". The drawing includes a side view and two end views.

Side View (Top):

- Overall width: 365
- Overall height: 30
- Top edge specification: 2 N3 ϕ 12.5 - 419
- Bottom edge specification: 2 N2 ϕ 12.5 - 423
- Left edge features: PT7 (point), -0.45 (slope), and a fillet radius R A.
- Right edge features: CT25 (corner) and a fillet radius R A.

End View (Bottom):

- Overall width: 365
- Overall height: 44
- Top edge specification: 17 N1 ϕ 6.3 - 128
- Bottom edge specification: 17 N1 ϕ 6.3 - 128

Section A-A (Right):

- Section line: A-A
- Section width: 20
- Section height: 50
- Section features: PT7 (point), -0.45 (slope), and a fillet radius R A.

Technical drawing of a rectangular plate, labeled "SEÇÃO A-A". The drawing shows the front and side views of the plate. The front view (top) shows a plate with a width of 388 mm and a height of 40 mm. It features a central slot with a depth of 30 mm and a width of 20 mm. The slot is labeled "2 N23 ø16.0 - 451". The plate is supported by two vertical supports, labeled "P24" and "PT8". The side view (bottom) shows a plate with a width of 388 mm and a height of 20 mm. It features a central slot with a depth of 20 mm and a width of 20 mm. The slot is labeled "2 N22 ø16.0 - 461". The plate is supported by two vertical supports, labeled "P24" and "PT8". The drawing also includes a detail view of the slot, showing a width of 50 mm and a height of 20 mm. The detail view is labeled "50" and "20". The drawing also includes a detail view of the plate, showing a width of 44 mm and a height of 14 mm. The detail view is labeled "44" and "14". The drawing also includes a detail view of the plate, showing a width of 23 N1 c/15 and a height of 60 mm. The detail view is labeled "23 N1 c/15" and "60". The drawing also includes a detail view of the plate, showing a width of 23 N1 ø6.3 - 128 and a height of 14 mm. The detail view is labeled "23 N1 ø6.3 - 128" and "14".

The technical drawing shows three views of a mechanical component:

- Front View (Top):** A horizontal rectangle with a total width of 365 mm and a height of 30 mm. It features two holes labeled "2 N3 ø12.5 - 419". A dimension line indicates a distance of 17 mm from the left edge to the center of the first hole.
- Top View (Bottom):** A horizontal rectangle with a total width of 365 mm and a depth of 20 mm. It features two holes labeled "2 N2 ø12.5 - 423". A dimension line indicates a distance of 17 mm from the left edge to the center of the first hole.
- Side View (Right):** Two vertical rectangles representing the profile of the part. The upper one has a height of 50 mm and a width of 20 mm. The lower one has a height of 44 mm and a width of 14 mm. Both show a central slot or feature indicated by a cross symbol.

Additional details include a slope indicator of 0.45 on the left side of the front view, section lines labeled "A-A", and a label "PT9" near the right end of the front view.

SEÇÃO A-A

31 N1 12.5 - 695

641

30

30

PT10

-0.45

CT22

PT11

LA

31 N1 16.0 - 694

641

30

30

50

20

44

14

31 N1 16.3 - 128

Technical drawing of a reinforced concrete slab (SEÇÃO A-A) showing dimensions and reinforcement details. The slab is 388 cm wide and 456 cm deep. It features 2 N14 bars at the top and 2 N13 bars at the bottom. The drawing includes a cross-section view (SEÇÃO A-A) showing a 50 cm thick slab with a 20 cm wide opening. Reinforcement details include 19 N1 bars at 20 cm spacing, 19 N1 bars at 6.3 cm spacing, and 19 N1 bars at 12.5 cm spacing. The drawing also shows a 50 cm wide section and a 44 cm wide section.

SEÇÃO A-A

44

654

2 N18 ø12.5 - 736

+ 0.08

- 0.45

CT73

T2

A

PT15

CT21

18 N1 c/20

13 N1 c/20

50

42

394

2 N16 ø12.5 - 480

283

2 N17 ø12.5 - 300

44

14

31 N1 ø6.3 - 128

2 N12 ø12.5 - 695

641

30

30

SEÇÃO A-A

PT16

-0.45

A

PT17

50

20

31 N1 ø12.5

641

20

3 N15 ø12.5 - 675

31 N1 ø6.3 - 128

44

14

Technical drawing of a window frame assembly, showing a side elevation and two cross-sections.

Side Elevation:

- Top rail: 2 N25 ø16.0 - 727
- Bottom rail: 40 N1 c/15
- Side rail: 40 N1 ø6.3 - 128
- Frame width: 654
- Frame height: 40
- Section line A-A is indicated.

Cross-sections:

- Top cross-section: 50 units high, 20 units wide.
- Bottom cross-section: 14 units high, 44 units wide.

SEÇÃO A-A

Top view dimensions: 2 N12.5 - 695, 641, 30, 30.

Side view dimensions: 50, 20, 20, 20.

End view dimensions: 44, 14, 31 N1 e/20, 641, 3 N15 e/12.5 - 675.

Reinforcement details: PT18, PT19, - 0.45, A, L A.

Technical drawing of a reinforced concrete beam (SEÇÃO A-A) showing dimensions and reinforcement details.

Top View:

- Overall length: 695
- Effective length: 641
- Reinforcement: 2 N12 ϕ 12.5
- Ends: 30

Front View:

- Overall height: 90
- Effective height: 84
- Reinforcement: 31 N1 ϕ 20
- Ends: 20
- Reinforcement details: PT20, PT21, -0.45, A, L A

Side View:

- Overall width: 44
- Effective width: 14
- Reinforcement: 31 N1 ϕ 6.3 - 128

Technical drawing of a door assembly, showing a side elevation and two cross-sections (A-A and B-B).

Side Elevation:

- Top panel: 225 ø16.0 - 727
- Bottom panel: 40
- Door height: 2050
- Door width: 654
- Door type: CT21
- Door handle: P36
- Door frame: 40 N1 ø15
- Door frame height: 40
- Door frame width: 654
- Door frame type: 2 N25 ø16.0 - 727

Cross-section A-A:

- Door height: 50
- Door width: 20

Cross-section B-B:

- Door height: 44
- Door width: 14

Labels:

- SEÇÃO A-A
- SEÇÃO B-B

SEÇÃO A-A

2 N21 ø12.5 - 797
797

PT22 -0.45 PT23 CT24 PT24

4 N1 11 N1 c/20 13 N1 c/20 8 N1 c/15 4 N1

20 343 478 20

2 N19 ø12.5 - 360 2 N20 ø12.5 - 495

50 20 14 44

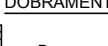
40 N1 ø6.3 - 128

CT1, CT2, CT3, CT4, CT5, CT6, CT7, CT8, CT9, CT10,
CT11, CT12, CT13, CT14, CT15

Resumo dos materiais

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	631.1	154.4
	12.5	378.5	364.6
	16.0	97.3	153.4
PESO TOTAL (kg)		Vol. concreto = 10.12 m³ Área formas = 121.49 m²	
CA50	672.5		

DIÂMETRO (D) DOS PINOS DE DOBRAMENTO PARA GANCHOS
SEM ESCALA



BITOLA (Ø)	CA50	CA60
<20mm	5xØ	6xØ
≥20mm	8xØ	—
estribo ≤10mm	3xØ	3xØ

NBR-6118:2003 (Itens 9.4.2.3 e 9.4.6.1)

Diagrama de seção transversal de uma parede de concreto armado, mostrando a disposição dos elementos estruturais e os espaçadores para as camadas de aço. O diagrama é rotulado "SEM ESCALA".

Legenda:

- ESTRIBO
- ESPAÇADOR (20,0mm)
- APÓS 2ª CAMADA
- APÓS 3ª CAMADA

01 NBR6118:2007 – Classe de Agressividade Ambiental = II.
02 NBR6118:2007 – Concreto com $f_{ck}=25\text{MPa}$ – Aço CA-50.
03 NBR6118:2007 – Cobrimento para as cintas, em todas as faces: 3,0cm.
04 Unidades: diâmetro do aço em milímetro; espaçamento e comprimento em centímetro;

[illegible]

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DESENHO:
415_arm02_04_r0.dwg

ESCALA:
seções: 1:25
cintas: 1:50

DATA – REVISÃO:
06/08/12 – R0

PROJETO:	E415
ARMO2-04	