

[illegible]

Technical drawing of a roof plan (Dachplan) showing a complex roof layout with multiple gables and valleys. The drawing includes dimensions, material specifications, and labels for various roof sections and features.

**Dimensions and Material Specifications:**

- Top edge: 384, 2 N1 Ø 8, C=415
- Left edge: 31
- Bottom edge: 20, 510, 2 N3 Ø 8 C=530
- Right edge: 2

**Roof Sections and Features:**

- Section A-A:** Indicated by a line with arrows at both ends, showing a cross-section through the roof.
- Section B-B:** Indicated by a line with arrows at both ends, showing another cross-section through the roof.
- Roof Slopes:** 15/40 and 15/40 are indicated in red, representing the pitch of the roof sections.
- Roof Material:** N6 C/22 12 Ø 5 is specified for the main roof sections.
- Roof Structure:** The drawing shows a complex arrangement of roof sections, including a central valley (P6) and side valleys (P9, P15).
- Roof Details:** Various details are shown, including a chimney (P6) and a roof edge (P9, P15).

169  
311 2 N2 Ø 10  
C=200 117 2 N1 Ø 5  
C=310 388 2 N3 Ø 12  
C=420

15/40

630  
2 N4 Ø 12.5 C=645

P28

Technical drawing of a mechanical part, likely a shaft or pipe, showing dimensions and features.

**Top View (Plan):**

- Overall length: 1086
- Overall diameter:  $\varnothing 12.5$
- Distance from left end to hole center: 21
- Hole diameter:  $\varnothing 12.5$
- Feature: 15/40 (red text)
- Feature: A (red text)

**Side View (Elevation):**

- Overall height: 14
- Overall width: 1087
- Distance from left end to hole center: 2
- Hole diameter:  $\varnothing 12.5$
- Feature: P42 (red text)
- Feature: V317 (red text)
- Feature: A (red text)

Technical drawing of a rectangular plate with dimensions and hole specifications. The drawing shows two views: a top view (top) and a side view (bottom).

**Top View:**

- Overall width: 530
- Overall height: 31
- Distance between hole centers:  $C = 592$
- Hole specifications:  $2 \text{ N1 } \varnothing 12.5$
- Distance from hole center to side edge: 15
- Distance from hole center to top/bottom edge: 40
- Labels A and B indicate the hole positions.

**Side View:**

- Overall width: 530
- Overall height: 15
- Distance between hole centers:  $C = 560$
- Hole specifications:  $2 \text{ N2 } \varnothing 10$
- Distance from hole center to side edge: 20
- Distance from hole center to top/bottom edge: 10
- Labels A and B indicate the hole positions.

Technical drawing of a mechanical part with dimensions and tolerances:

- Top view:
  - Overall length: 282
  - Inner length: 2 N1 Ø 12.5 C=344
  - End thickness: 31
  - Feature: 15/40 A
- Side view:
  - Overall length: N3 C/22 12 Ø 5
  - Inner length: 2 Ø 12.5
  - End thickness: 2 Ø 10
  - Feature: P31 V310
- Bottom view:
  - Overall length: 282
  - Inner length: 2 N2 Ø 10 C=310
  - End thickness: 14
  - Feature: A

Technical drawing of a mechanical part, likely a shaft or tube, showing dimensions and tolerances. The drawing includes a top view and a side view.

**Top View Dimensions:**

- Overall length: 458
- Left end: R=12
- Right end: R=12
- Central hole: 15/30
- Internal feature: N1 Ø 16 C=500
- Internal feature: N4 C/15 28 Ø 5
- Internal feature: N3 Ø 6.3 C=81
- Internal feature: N2 Ø 16 C=485

**Side View Dimensions:**

- Overall length: 458
- Left end: R=4
- Right end: R=4
- Central hole: 15/30
- Internal feature: N1 Ø 16 C=500
- Internal feature: N4 C/15 28 Ø 5
- Internal feature: N3 Ø 6.3 C=81
- Internal feature: N2 Ø 16 C=485

The drawing is labeled "P2" and "P1".

Technical drawing of a mechanical part, likely a shaft or tube, showing dimensions and specifications.

**Top View Dimensions:**

- Overall width: 154
- Overall height: 41
- Distance from left edge to first hole: 118
- Hole specifications: 4 N2 Ø 10 C=195
- Central hole: 4 N1 Ø 5 C=815

**Side View Dimensions:**

- Overall length: 1070
- Overall diameter: 4 N3 Ø 12.5 C=1100
- Distance from left edge to first hole: 34
- Hole specifications: 2 N4 Ø 6.3 C=90
- Central hole: 4 Ø 5 C=18

**Other Labels:**

- P33
- 40/50

|      | AÇO | POS | BIT  | QUANT | COMPRIMENTO |             |
|------|-----|-----|------|-------|-------------|-------------|
|      |     |     | mm   |       | UNIT<br>cm  | TOTAL<br>cm |
| V315 | 60A | 1   | 5    | 2     | 490         | 980         |
|      | 50A | 2   | 12.5 | 2     | 205         | 410         |
|      | 50A | 3   | 16   | 2     | 655         | 1310        |
|      | 50A | 4   | 6.3  | 1     | 85          | 85          |
|      | 60A | 5   | 5    | 27    | 101         | 2727        |
| V316 | 50A | 1   | 12.5 | 2     | 1132        | 2264        |
|      | 50A | 2   | 12.5 | 2     | 1115        | 2230        |
|      | 60A | 3   | 5    | 48    | 101         | 4848        |
| V317 | 50A | 1   | 16   | 2     | 740         | 1480        |
|      | 50A | 2   | 10   | 2     | 305         | 610         |
|      | 50A | 3   | 10   | 2     | 485         | 970         |
|      | 60A | 4   | 5    | 30    | 101         | 3030        |
| V318 | 50A | 1   | 12.5 | 2     | 592         | 1184        |
|      | 50A | 2   | 10   | 2     | 560         | 1120        |
|      | 60A | 3   | 5    | 23    | 101         | 2323        |
| V319 | 50A | 1   | 8    | 2     | 229         | 458         |
|      | 50A | 2   | 10   | 2     | 195         | 390         |
|      | 60A | 3   | 5    | 7     | 101         | 707         |
| V320 | 50A | 1   | 12.5 | 2     | 344         | 688         |
|      | 50A | 2   | 10   | 2     | 310         | 620         |
|      | 60A | 3   | 5    | 12    | 101         | 1212        |
| V321 | 50A | 1   | 8    | 2     | 415         | 830         |
|      | 50A | 2   | 12.5 | 2     | 373         | 746         |
|      | 50A | 3   | 8    | 2     | 530         | 1060        |
|      | 50A | 4   | 8    | 2     | 370         | 740         |
|      | 60A | 5   | 8    | 2     | 185         | 370         |
| V322 | 50A | 5   | 5    | 46    | 101         | 4646        |
|      | 50A | 1   | 16   | 2     | 500         | 1000        |
|      | 50A | 2   | 16   | 2     | 485         | 970         |
|      | 50A | 3   | 6.3  | 1     | 81          | 81          |
|      | 60A | 4   | 5    | 28    | 81          | 2268        |
| V323 | 60A | 1   | 5    | 2     | 310         | 620         |
|      | 50A | 2   | 10   | 2     | 200         | 400         |
|      | 50A | 3   | 12.5 | 2     | 420         | 840         |
|      | 50A | 4   | 12.5 | 2     | 645         | 1290        |
|      | 60A | 5   | 10   | 2     | 190         | 380         |
| V324 | 50A | 6   | 5    | 34    | 101         | 3434        |
|      | 60A | 1   | 5    | 4     | 815         | 3260        |
|      | 50A | 2   | 10   | 8     | 195         | 1560        |
|      | 50A | 3   | 12.5 | 4     | 1100        | 4400        |
|      | 50A | 4   | 6.3  | 4     | 90          | 360         |
|      | 50A | 5   | 5    | 118   | 149         | 17580       |
|      |     |     |      |       |             |             |

| RESUMO DE AÇO |           |            |             |
|---------------|-----------|------------|-------------|
| AÇO           | BIT<br>mm | COMPR<br>m | PESO<br>kgf |
| 60A           | 5         | 476        | 73          |
| 50A           | 6.3       | 5          | 1           |
| 50A           | 8         | 35         | 14          |
| 50A           | 10        | 61         | 37          |
| 50A           | 12.5      | 149        | 143         |
| 50A           | 16        | 48         | 75          |
| Peso Total    | 60A =     |            | 73 kgf      |
| Peso Total    | 50A =     |            | 270 kaf     |

Site com:

- Modelos 3D
- Arquivos de obra
- Todos os documentos do projeto



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|          |                                      |         |                                                                                                                          |
|----------|--------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------|
| CLIENTE: | MAXWELL DE OLIVEIRA                  |         | DESENHO Nº:17                                                                                                            |
| OBRA:    | RESIDÊNCIA UNIFAMILIAR               |         |                                                                                                                          |
| TÍTULO:  | Detalhamento:<br>- VIGAS / COBERTURA |         | OBS:<br><br>Concreto:<br>fck: 25 MPa<br>ECS: 24150 MPa<br><br>Atente-se aos<br>cobrimentos<br>Leia o Memorial Descritivo |
| DATA:    | 02/08/2021                           | ESCALA: | INDICADA                                                                                                                 |