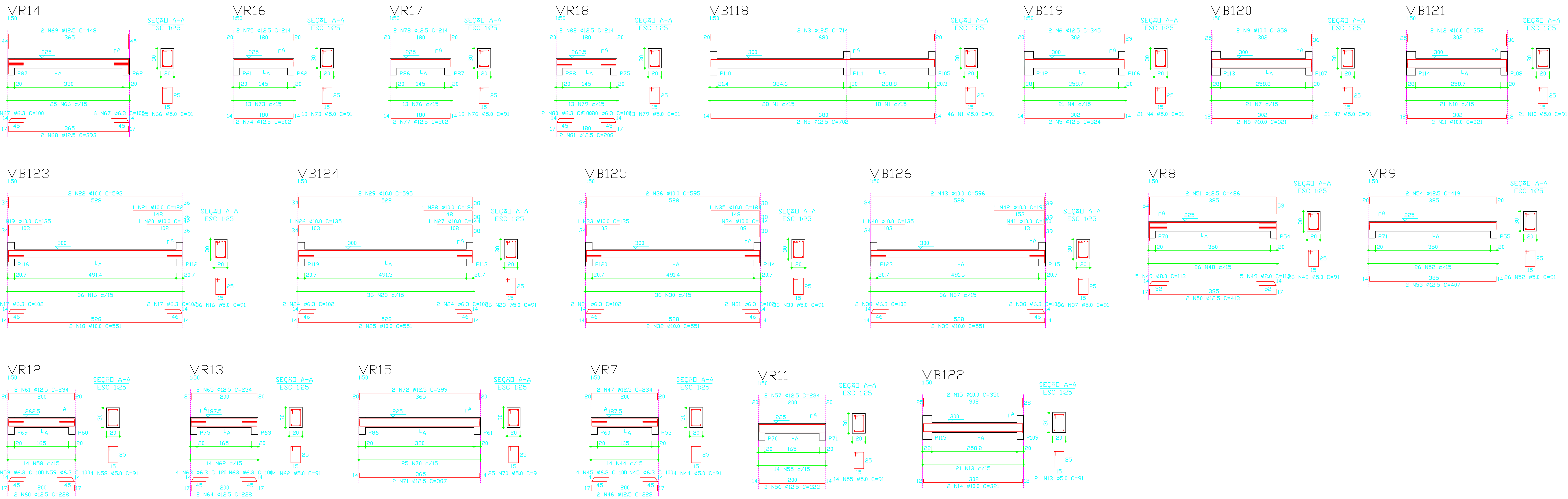




| RELAÇÃO DO AÇO |     |     |      |    |              |
|----------------|-----|-----|------|----|--------------|
| ELEMENTO       | ACQ | N   | DIAM | Q  | C.TOTAL (cm) |
| VR18           | 60  | 2   | 12,5 | 46 | 191          |
| VR19           | 60  | 4   | 12,5 | 91 | 382          |
| VR20           | 50  | 6   | 12,5 | 91 | 546          |
| VR21           | 50  | 8   | 10,0 | 91 | 728          |
| VR22           | 50  | 10  | 10,0 | 91 | 909          |
| VR23           | 50  | 12  | 10,0 | 91 | 1091         |
| VR24           | 50  | 14  | 10,0 | 91 | 1274         |
| VR25           | 50  | 16  | 10,0 | 91 | 1457         |
| VR26           | 50  | 18  | 10,0 | 91 | 1640         |
| VR27           | 50  | 20  | 10,0 | 91 | 1823         |
| VR28           | 50  | 22  | 10,0 | 91 | 2006         |
| VR29           | 50  | 24  | 10,0 | 91 | 2189         |
| VR30           | 50  | 26  | 10,0 | 91 | 2372         |
| VR31           | 50  | 28  | 10,0 | 91 | 2555         |
| VR32           | 50  | 30  | 10,0 | 91 | 2738         |
| VR33           | 50  | 32  | 10,0 | 91 | 2921         |
| VR34           | 50  | 34  | 10,0 | 91 | 3104         |
| VR35           | 50  | 36  | 10,0 | 91 | 3287         |
| VR36           | 50  | 38  | 10,0 | 91 | 3470         |
| VR37           | 50  | 40  | 10,0 | 91 | 3653         |
| VR38           | 50  | 42  | 10,0 | 91 | 3836         |
| VR39           | 50  | 44  | 10,0 | 91 | 4019         |
| VR40           | 50  | 46  | 10,0 | 91 | 4202         |
| VR41           | 50  | 48  | 10,0 | 91 | 4385         |
| VR42           | 50  | 50  | 10,0 | 91 | 4568         |
| VR43           | 50  | 52  | 10,0 | 91 | 4751         |
| VR44           | 50  | 54  | 10,0 | 91 | 4934         |
| VR45           | 50  | 56  | 10,0 | 91 | 5117         |
| VR46           | 50  | 58  | 10,0 | 91 | 5300         |
| VR47           | 50  | 60  | 10,0 | 91 | 5483         |
| VR48           | 50  | 62  | 10,0 | 91 | 5666         |
| VR49           | 50  | 64  | 10,0 | 91 | 5849         |
| VR50           | 50  | 66  | 10,0 | 91 | 6032         |
| VR51           | 50  | 68  | 10,0 | 91 | 6215         |
| VR52           | 50  | 70  | 10,0 | 91 | 6398         |
| VR53           | 50  | 72  | 10,0 | 91 | 6581         |
| VR54           | 50  | 74  | 10,0 | 91 | 6764         |
| VR55           | 50  | 76  | 10,0 | 91 | 6947         |
| VR56           | 50  | 78  | 10,0 | 91 | 7130         |
| VR57           | 50  | 80  | 10,0 | 91 | 7313         |
| VR58           | 50  | 82  | 10,0 | 91 | 7496         |
| VR59           | 50  | 84  | 10,0 | 91 | 7679         |
| VR60           | 50  | 86  | 10,0 | 91 | 7862         |
| VR61           | 50  | 88  | 10,0 | 91 | 8045         |
| VR62           | 50  | 90  | 10,0 | 91 | 8228         |
| VR63           | 50  | 92  | 10,0 | 91 | 8411         |
| VR64           | 50  | 94  | 10,0 | 91 | 8594         |
| VR65           | 50  | 96  | 10,0 | 91 | 8777         |
| VR66           | 50  | 98  | 10,0 | 91 | 8960         |
| VR67           | 50  | 100 | 10,0 | 91 | 9143         |
| VR68           | 50  | 102 | 10,0 | 91 | 9326         |
| VR69           | 50  | 104 | 10,0 | 91 | 9509         |
| VR70           | 50  | 106 | 10,0 | 91 | 9692         |
| VR71           | 50  | 108 | 10,0 | 91 | 9875         |
| VR72           | 50  | 110 | 10,0 | 91 | 10058        |
| VR73           | 50  | 112 | 10,0 | 91 | 10241        |
| VR74           | 50  | 114 | 10,0 | 91 | 10424        |
| VR75           | 50  | 116 | 10,0 | 91 | 10607        |
| VR76           | 50  | 118 | 10,0 | 91 | 10790        |
| VR77           | 50  | 120 | 10,0 | 91 | 10973        |
| VR78           | 50  | 122 | 10,0 | 91 | 11156        |
| VR79           | 50  | 124 | 10,0 | 91 | 11339        |
| VR80           | 50  | 126 | 10,0 | 91 | 11522        |
| VR81           | 50  | 128 | 10,0 | 91 | 11705        |
| VR82           | 50  | 130 | 10,0 | 91 | 11888        |
| VR83           | 50  | 132 | 10,0 | 91 | 12071        |
| VR84           | 50  | 134 | 10,0 | 91 | 12254        |
| VR85           | 50  | 136 | 10,0 | 91 | 12437        |
| VR86           | 50  | 138 | 10,0 | 91 | 12620        |
| VR87           | 50  | 140 | 10,0 | 91 | 12803        |
| VR88           | 50  | 142 | 10,0 | 91 | 12986        |
| VR89           | 50  | 144 | 10,0 | 91 | 13169        |
| VR90           | 50  | 146 | 10,0 | 91 | 13352        |
| VR91           | 50  | 148 | 10,0 | 91 | 13535        |
| VR92           | 50  | 150 | 10,0 | 91 | 13718        |
| VR93           | 50  | 152 | 10,0 | 91 | 13901        |
| VR94           | 50  | 154 | 10,0 | 91 | 14084        |
| VR95           | 50  | 156 | 10,0 | 91 | 14267        |
| VR96           | 50  | 158 | 10,0 | 91 | 14450        |
| VR97           | 50  | 160 | 10,0 | 91 | 14633        |
| VR98           | 50  | 162 | 10,0 | 91 | 14816        |
| VR99           | 50  | 164 | 10,0 | 91 | 15000        |
| VR100          | 50  | 166 | 10,0 | 91 | 15183        |
| VR101          | 50  | 168 | 10,0 | 91 | 15366        |
| VR102          | 50  | 170 | 10,0 | 91 | 15549        |
| VR103          | 50  | 172 | 10,0 | 91 | 15732        |
| VR104          | 50  | 174 | 10,0 | 91 | 15915        |
| VR105          | 50  | 176 | 10,0 | 91 | 16098        |
| VR106          | 50  | 178 | 10,0 | 91 | 16281        |
| VR107          | 50  | 180 | 10,0 | 91 | 16464        |
| VR108          | 50  | 182 | 10,0 | 91 | 16647        |
| VR109          | 50  | 184 | 10,0 | 91 | 16830        |
| VR110          | 50  | 186 | 10,0 | 91 | 17013        |
| VR111          | 50  | 188 | 10,0 | 91 | 17196        |
| VR112          | 50  | 190 | 10,0 | 91 | 17379        |
| VR113          | 50  | 192 | 10,0 | 91 | 17562        |
| VR114          | 50  | 194 | 10,0 | 91 | 17745        |
| VR115          | 50  | 196 | 10,0 | 91 | 17928        |
| VR116          | 50  | 198 | 10,0 | 91 | 18111        |
| VR117          | 50  | 200 | 10,0 | 91 | 18294        |
| VR118          | 50  | 202 | 10,0 | 91 | 18477        |
| VR119          | 50  | 204 | 10,0 | 91 | 18660        |
| VR120          | 50  | 206 | 10,0 | 91 | 18843        |
| VR121          | 50  | 208 | 10,0 | 91 | 19026        |
| VR122          | 50  | 210 | 10,0 | 91 | 19209        |
| VR123          | 50  | 212 | 10,0 | 91 | 19392        |
| VR124          | 50  | 214 | 10,0 | 91 | 19575        |
| VR125          | 50  | 216 | 10,0 | 91 | 19758        |
| VR126          | 50  | 218 | 10,0 | 91 | 19941        |
| VR127          | 50  | 220 | 10,0 | 91 | 20124        |
| VR128          | 50  | 222 | 10,0 | 91 | 20307        |
| VR129          | 50  | 224 | 10,0 | 91 | 20490        |
| VR130          | 50  | 226 | 10,0 | 91 | 20673        |
| VR131          | 50  | 228 | 10,0 | 91 | 20856        |
| VR132          | 50  | 230 | 10,0 | 91 | 21039        |
| VR133          | 50  | 232 | 10,0 | 91 | 21222        |
| VR134          | 50  | 234 | 10,0 | 91 | 21405        |
| VR135          | 50  | 236 | 10,0 | 91 | 21588        |
| VR136          | 50  | 238 | 10,0 | 91 | 21771        |
| VR137          | 50  | 240 | 10,0 | 91 | 21954        |
| VR138          | 50  | 242 | 10,0 | 91 | 22137        |
| VR139          | 50  | 244 | 10,0 | 91 | 22320        |
| VR140          | 50  | 246 | 10,0 | 91 | 22503        |
| VR141          | 50  | 248 | 10,0 | 91 | 22686        |
| VR142          | 50  | 250 | 10,0 | 91 | 22869        |
| VR143          | 50  | 252 | 10,0 | 91 | 23052        |
| VR144          | 50  | 254 | 10,0 | 91 | 23235        |
| VR145          | 50  | 256 | 10,0 | 91 | 23418        |
| VR146          | 50  | 258 | 10,0 | 91 | 23601        |
| VR147          | 50  | 260 | 10,0 | 91 | 23784        |
| VR148          | 50  | 262 | 10,0 | 91 | 23967        |
| VR149          | 50  | 264 | 10,0 | 91 | 24150        |
| VR150          | 50  | 266 | 10,0 | 91 | 24333        |
| VR151          | 50  | 268 | 10,0 | 91 | 24516        |
| VR152          | 50  | 270 | 10,0 | 91 | 24699        |
| VR153          | 50  | 272 | 10,0 | 91 | 24882        |
| VR154          | 50  | 274 | 10,0 | 91 | 25065        |
| VR155          | 50  | 276 | 10,0 | 91 | 25248        |
| VR156          | 50  | 278 | 10,0 | 91 | 25431        |
| VR157          | 50  | 280 | 10,0 | 91 | 25614        |
| VR158          | 50  | 282 | 10,0 | 91 | 25797        |
| VR159          | 50  | 284 | 10,0 | 91 | 25980        |
| VR160          | 50  | 286 | 10,0 | 91 | 26163        |
| VR161          | 50  | 288 | 10,0 | 91 | 26346        |
| VR162          | 50  | 290 | 10,0 | 91 | 26529        |
| VR163          | 50  | 292 | 10,0 | 91 | 26712        |
| VR164          | 50  | 294 | 10,0 | 91 | 26895        |
| VR165          | 50  | 296 | 10,0 | 91 | 27078        |
| VR166          | 50  | 298 | 10,0 | 91 | 27261        |
| VR167          | 50  | 300 | 10,0 | 91 | 27444        |
| VR168          | 50  | 302 | 10,0 | 91 | 27627        |
| VR169          | 50  | 304 | 10,0 | 91 | 27810        |
| VR170          | 50  | 306 | 10,0 | 91 | 27993        |
| VR171          | 50  | 308 | 10,0 | 91 | 28176        |
| VR172          | 50  | 310 | 10,0 | 91 | 28359        |
| VR173          | 50  | 312 | 10,0 | 91 | 28542        |
| VR174          | 50  | 314 | 10,0 | 91 | 28725        |
| VR175          | 50  | 316 | 10,0 | 91 | 28908        |
| VR176          | 50  | 318 | 10,0 | 91 | 29091        |
| VR177          | 50  | 320 | 10,0 | 91 | 29274        |
| VR178          | 50  | 322 | 10,0 | 91 | 29457        |
| VR179          | 50  | 324 | 10,0 | 91 | 29640        |
| VR180          | 50  | 326 | 10,0 | 91 | 29823        |
| VR181          | 50  | 328 | 10,0 | 91 | 30006        |
| VR182          | 50  | 330 | 10,0 | 91 | 30189        |
| VR183          | 50  | 332 | 10,0 | 91 | 30372        |
| VR184          | 50  | 334 | 10,0 | 91 | 30555        |
| VR185          | 50  | 336 | 10,0 | 91 | 30738        |
| VR186          | 50  | 338 | 10,0 | 91 | 30921        |
| VR187          | 50  | 340 | 10,0 | 91 | 31104        |
| VR188          | 50  | 342 | 10,0 | 91 | 31287        |
| VR189          | 50  | 344 | 10,0 | 91 | 31470        |
| VR190          | 50  | 346 | 10,0 | 91 | 31653        |
| VR191          | 50  | 348 | 10,0 | 91 | 31836        |
| VR192          | 50  | 350 | 10,0 | 91 | 32019        |
| VR193          | 50  | 352 | 10,0 | 91 | 32202        |
| VR194          | 50  | 354 | 10,0 | 91 | 32385        |
| VR195          | 50  | 356 | 10,0 | 91 | 32568        |
| VR196          | 50  | 358 | 10,0 | 91 | 32751        |
| VR197          | 50  | 360 | 10,0 | 91 | 32934        |
| VR198          | 50  | 362 | 10,0 | 91 | 33117        |
| VR199          | 50  | 364 | 10,0 | 91 | 33300        |
| VR200          | 50  | 366 | 10,0 | 91 | 33483        |
| VR201          | 50  | 368 | 10,0 | 91 | 33666        |
| VR202          | 50  | 370 | 10,0 | 91 | 33849        |
| VR203          | 50  | 372 | 10,0 | 91 | 34032        |
| VR204          | 50  | 374 | 10,0 | 91 | 34215        |
| VR205          | 50  | 376 | 10,0 | 91 | 34398        |
| VR206          | 50  | 378 | 10,0 | 91 | 34581        |
| VR207          | 50  | 380 | 10,0 | 91 | 34764        |
| VR208          | 50  | 382 | 10,0 | 91 | 34947        |
| VR209          | 50  | 384 | 10,0 | 91 | 35130        |
| VR210          | 50  | 386 | 10,0 | 91 | 35313        |
| VR211          | 50  | 388 | 10,0 | 91 | 35496        |
| VR212          | 50  | 390 | 10,0 | 91 | 35679        |
| VR213          | 50  | 392 | 10,0 | 91 | 35862        |
| VR214          | 50  | 394 | 10,0 | 91 | 36045        |
| VR215          | 50  | 396 | 10,0 | 91 | 36228        |
| VR216          | 50  | 398 | 10,0 | 91 | 36411        |
| VR217          | 50  | 400 | 10,0 | 91 | 36594        |
| VR218          | 50  | 402 | 10,0 | 91 | 36777        |
| VR219          | 50  | 404 | 10,0 | 91 | 36960        |
| VR220          | 50  | 406 | 10,0 | 91 | 37143        |
| VR221          | 50  | 408 | 10,0 | 91 | 37326        |
| VR222          | 50  | 410 | 10,0 | 91 | 37509        |
| VR223          | 50  | 412 | 10,0 | 91 | 37692        |
| VR224          | 50  | 414 | 10,0 | 91 | 37875        |
| VR225          | 50  | 416 | 10,0 | 91 | 38058        |
| VR226          | 50  | 418 | 10,0 | 91 | 38241        |
| VR227          | 50  | 420 | 10,0 | 91 | 38424        |
| VR228          | 50  | 422 | 10,0 | 91 | 38607        |
| VR229          | 50  | 424 | 10,0 | 91 | 38790        |
| VR230          | 50  | 426 | 10,0 | 91 | 38973        |
| VR231          | 50  | 428 | 10,0 | 91 | 39156        |
| VR232          | 50  | 430 | 10,0 | 91 | 39339        |
| VR233          | 50  | 432 | 10,0 | 91 | 39522        |
| VR234          | 50  | 434 | 10,0 | 91 | 39705        |
| VR235          | 50  | 436 | 10,0 | 91 | 39888        |
| VR236          | 50  | 438 | 10,0 | 91 | 40071        |
| VR237          | 50  | 440 | 10,0 | 91 | 40254        |
| VR238          | 50  | 442 | 10,0 | 91 | 40437        |
| VR239          | 50  | 444 | 10,0 | 91 | 40620        |
| VR240          | 50  | 446 | 10,0 | 91 | 40803        |
| VR241          | 50  | 448 | 10,0 | 91 | 40986        |
| VR242          | 50  | 450 | 10,0 | 91 | 41169        |
| VR243          | 50  | 452 | 10,0 | 91 | 41352        |
| VR244          | 50  | 454 | 10,0 | 91 | 41535        |
| VR245          | 50  | 456 | 10,0 |    |              |