



PLANTA DE CARGAS NA FUNDAÇÃO  
ESCALA 1:100

| Nome | Seção   | X     | Y       | Carga Máx. | Carga Mín. | Mz Máximo (kgf.m) | Mz Mínimo (kgf.m) | Fx Máximo (kgf) | Fx Mínimo (kgf) | Fy Máximo (kgf) | Fy Mínimo (kgf) |
|------|---------|-------|---------|------------|------------|-------------------|-------------------|-----------------|-----------------|-----------------|-----------------|
| P01  | 15x50   | 5.00  | 4026.20 | 6.2        | 5.3        | 1600              | 0                 | 0               | -1.3            | 0.0             | -0.4            |
| P02  | 15x50   | 5.75  | 4026.19 | 7.0        | 6.0        | 2300              | -300              | 0               | 2.5             | 0.0             | 0.2             |
| P03  | 15x50   | 6.50  | 4026.18 | 7.1        | 6.5        | 700               | 0                 | -400            | 0.0             | -2.5            | 0.2             |
| P04  | 15x50   | 7.25  | 4026.17 | 6.1        | 6.1        | 2300              | 0                 | 0               | 0.0             | 0.0             | -2.1            |
| P05  | 15x50   | 8.00  | 4026.16 | 6.1        | 6.2        | 2300              | 0                 | 0               | 0.0             | -1.1            | 0.1             |
| P06  | 15x50   | 8.75  | 4026.15 | 7.1        | 6.9        | 2300              | -300              | 0               | 0.0             | 2.4             | 0.0             |
| P07  | 15x50   | 9.50  | 4026.14 | 7.0        | 6.6        | 600               | -200              | 0               | 0.0             | -2.4            | 0.1             |
| P08  | 15x50   | 10.25 | 4026.13 | 6.1        | 6.1        | 1700              | 0                 | 0               | 0.0             | -0.9            | 0.0             |
| P09  | 15x50   | 11.00 | 4026.12 | 12.8       | 11.9       | 0                 | 0                 | -300            | 700             | 0.0             | -2.9            |
| P10  | 15x50   | 11.75 | 4026.11 | 5.1        | 4.9        | 200               | 0                 | 0               | 0.0             | 4.9             | 0.0             |
| P11  | 15x50   | 12.50 | 4026.10 | 5.7        | 5.4        | 200               | 0                 | 0               | 0.0             | -3.0            | 0.0             |
| P12  | 15x50   | 13.25 | 4026.09 | 12.1       | 12.2       | 0                 | 0                 | -400            | 400             | 0.0             | 0.9             |
| P13  | 15x50   | 14.00 | 4026.08 | 12.5       | 12.1       | 0                 | 0                 | -400            | 200             | -400            | 0.0             |
| P14  | 15x50   | 14.75 | 4026.07 | 5.1        | 5.4        | 200               | 0                 | 0               | 0.0             | -0.6            | 0.0             |
| P15  | 15x50   | 15.50 | 4026.06 | 6.1        | 5.8        | 200               | 0                 | 0               | 0.0             | -4.1            | 0.0             |
| P16  | 15x50   | 16.25 | 4026.05 | 12.6       | 11.1       | 0                 | 0                 | -400            | 0               | 0.0             | 0.9             |
| P17  | 15x50   | 17.00 | 4026.04 | 5.8        | 5.2        | 300               | 0                 | 0               | 0.0             | -1.1            | 0.8             |
| P18  | 15x50   | 17.75 | 4026.03 | 6.1        | 5.9        | 700               | 0                 | 0               | 0.0             | 0.0             | 0.9             |
| P19  | 15x50   | 18.50 | 4026.02 | 5.7        | 5.1        | 600               | 0                 | 0               | 0.0             | -0.5            | 0.6             |
| P20  | 15x50   | 19.25 | 4026.01 | 6.1        | 5.9        | 700               | 0                 | 0               | 0.0             | 0.0             | 0.9             |
| P21  | 15x50   | 20.00 | 4026.00 | 12.8       | 12.6       | 0                 | -700              | 1900            | 0.0             | -1.6            | 0.0             |
| P22  | 15x50   | 20.75 | 4025.99 | 9.1        | 9.1        | 400               | -200              | 0               | 0.0             | 1.6             | 0.0             |
| P23  | 15x50   | 21.50 | 4025.98 | 8.0        | 7.9        | 0                 | 0                 | -600            | 0               | 0.0             | -1.5            |
| P24  | 15x50   | 22.25 | 4025.97 | 8.0        | 8.0        | 0                 | 0                 | -1000           | 100             | 0.0             | -1.4            |
| P25  | 15x50   | 23.00 | 4025.96 | 9.8        | 9.8        | 0                 | 0                 | -600            | 0               | -1000           | 0.4             |
| P26  | 15x50   | 23.75 | 4025.95 | 8.0        | 8.0        | 0                 | 0                 | -400            | 0               | -1000           | 1.4             |
| P27  | 15x50   | 24.50 | 4025.94 | 8.4        | 8.1        | 100               | -100              | 0               | 0.0             | -1.4            | 0.0             |
| P28  | 15x50   | 25.25 | 4025.93 | 12.8       | 12.5       | 0                 | 0                 | 2000            | 0               | -1.8            | 1.7             |
| P29  | 15x50   | 26.00 | 4025.92 | 11.6       | 11.4       | 800               | -200              | 0               | 0.0             | 1.4             | 0.0             |
| P30  | 15x50   | 26.75 | 4025.91 | 7.9        | 7.8        | 800               | 0                 | 0               | 0.0             | -1.2            | 0.7             |
| P31  | 15x50   | 27.50 | 4025.90 | 8.0        | 8.0        | 0                 | 0                 | -1300           | 0               | 0.0             | -1.2            |
| P32  | 15x50   | 28.25 | 4025.89 | 8.1        | 8.1        | 0                 | 0                 | -1000           | 100             | 0.0             | -1.4            |
| P33  | 15x50   | 29.00 | 4025.88 | 9.5        | 9.4        | 900               | 0                 | 0               | 0.0             | -2.4            | 1.4             |
| P34  | 15x50   | 29.75 | 4025.87 | 8.0        | 8.0        | 0                 | 0                 | -200            | 0               | 0.0             | 0.3             |
| P35  | 15x50   | 30.50 | 4025.86 | 7.1        | 7.0        | 0                 | 0                 | 0               | 0.0             | -1.5            | 0.4             |
| P36  | 15x50   | 31.25 | 4025.85 | 12.1       | 12.1       | 0                 | 0                 | -400            | 0               | 0.0             | 0.0             |
| P37  | 15x50   | 32.00 | 4025.84 | 5.4        | 4.9        | 0                 | -700              | 300             | 0.0             | -1.3            | 0.0             |
| P38  | 15x50   | 32.75 | 4025.83 | 5.8        | 5.1        | 300               | 0                 | 0               | 0.0             | 0.0             | -0.9            |
| P39  | 15x50   | 33.50 | 4025.82 | 5.6        | 5.0        | 0                 | -700              | 300             | 0.0             | -2.6            | 0.0             |
| P40  | 15x50   | 34.25 | 4025.81 | 6.1        | 5.1        | 400               | 0                 | 0               | 0.0             | -0.6            | 0.0             |
| P41  | 15x50   | 35.00 | 4025.80 | 12.2       | 11.4       | 400               | 0                 | 100             | -600            | 0.0             | -3.0            |
| P42  | 15x50   | 35.75 | 4025.79 | 6.1        | 6.1        | 400               | -200              | 0               | 0.0             | 1.6             | 0.0             |
| P43  | 15x50   | 36.50 | 4025.78 | 8.2        | 7.8        | 0                 | 0                 | -300            | 0               | 0.0             | -2.1            |
| P44  | 15x50   | 37.25 | 4025.77 | 10.1       | 9.8        | 0                 | 0                 | -600            | 0               | 0.0             | -1.0            |
| P45  | 15x50   | 38.00 | 4025.76 | 10.5       | 9.9        | 300               | 0                 | 0               | 0.0             | -2.6            | 0.0             |
| P46  | 15x50   | 38.75 | 4025.75 | 6.1        | 6.0        | 0                 | -300              | 0               | 0.0             | -0.6            | 0.0             |
| P47  | 15x50   | 39.50 | 4025.74 | 6.5        | 6.2        | 100               | -100              | 0               | 0.0             | -4.4            | 0.6             |
| P48  | 15x50   | 40.25 | 4025.73 | 11.6       | 11.1       | 0                 | 0                 | -1800           | 0               | 0.0             | -1.4            |
| P49  | 15x50   | 41.00 | 4025.72 | 6.6        | 6.2        | 0                 | 0                 | -1600           | 0               | 0.0             | -0.3            |
| P50  | 15x50   | 41.75 | 4025.71 | 7.0        | 6.9        | 0                 | 0                 | -1000           | 0               | 0.0             | -1.1            |
| P51  | 15x50   | 42.50 | 4025.70 | 7.3        | 7.2        | 0                 | 0                 | -800            | 0               | 0.0             | -1.0            |
| P52  | 15x50   | 43.25 | 4025.69 | 8.9        | 8.7        | 0                 | 0                 | -1100           | 0               | 0.0             | -1.2            |
| P53  | 15x50   | 44.00 | 4025.68 | 9.9        | 9.7        | 0                 | 0                 | -1400           | 0               | 0.0             | -1.5            |
| P54  | 15x50   | 44.75 | 4025.67 | 7.9        | 7.4        | 0                 | 0                 | -1000           | 0               | 0.0             | -1.0            |
| P55  | 15x50   | 45.50 | 4025.66 | 7.8        | 7.3        | 0                 | 0                 | -800            | 0               | 0.0             | -0.3            |
| P56  | 15x50   | 46.25 | 4025.65 | 6.4        | 6.1        | 0                 | -800              | 0               | 0.0             | 0.0             | 0.0             |
| P57  | 15x50   | 47.00 | 4025.64 | 5.7        | 5.2        | 1400              | 0                 | 900             | 0.0             | -1.1            | 0.0             |
| P58  | 15x50   | 47.75 | 4025.63 | 6.0        | 5.6        | 0                 | 0                 | 0               | 0.0             | 0.0             | 0.0             |
| P59  | 15x50   | 48.50 | 4025.62 | 7.2        | 6.7        | 700               | 0                 | 800             | 0.0             | -2.1            | 0.4             |
| P60  | 15x50   | 49.25 | 4025.61 | 10.3       | 9.1        | 1100              | 0                 | 0               | 0.0             | -0.5            | 0.0             |
| P61  | 15x50   | 50.00 | 4025.60 | 0.6        | 0.6        | 100               | 0                 | 100             | -10             | 0.0             | -1.0            |
| P62  | 15x50   | 50.75 | 4025.59 | 10.3       | 9.8        | 0                 | 0                 | 0               | 0.0             | 0.0             | 0.0             |
| P63  | 15x50   | 51.50 | 4025.58 | 7.1        | 6.9        | 200               | -200              | 0               | 0.0             | 2.2             | 0.0             |
| P64  | 15x50   | 52.25 | 4025.57 | 6.9        | 6.4        | 0                 | 0                 | 300             | -400            | 2.2             | 0.0             |
| P65  | 15x50   | 53.00 | 4025.56 | 5.7        | 5.3        | 1400              | 0                 | 0               | 0.0             | -1.0            | 0.0             |
| P66  | 15x50   | 53.75 | 4025.55 | 11.1       | 11.1       | 0                 | 0                 | -300            | 0               | 0.0             | 0.0             |
| P67  | 15x50   | 54.50 | 4025.54 | 4.8        | 4.3        | 100               | -200              | 0               | -1400           | 2.8             | 0.0             |
| P68  | 15x50   | 55.25 | 4025.53 | 4.8        | 4.3        | 100               | -200              | 0               | -1400           | 2.8             | 0.0             |
| P69  | 15x50   | 56.00 | 4025.52 | 8.3        | 7.9        | 0                 | 0                 | 0               | 0.0             | 2.7             | 0.0             |
| P70  | 15x50   | 56.75 | 4025.51 | 7.9        | 7.7        | 0                 | 0                 | 0               | 0.0             | 1.0             | 0.0             |
| P71  | 15x50   | 57.50 | 4025.50 | 2.9        | 2.8        | 0                 | 0                 | 0               | 0.0             | -4.8            | 0.2             |
| P72  | 15x50   | 58.25 | 4025.49 | 4.4        | 4.4        | 200               | 0                 | 0               | 0.0             | 1.0             | 0.0             |
| P73  | 15x50   | 59.00 | 4025.48 | 4.2        | 3.8        | 400               | 0                 | 0               | 0.0             | -1.1            | 0.0             |
| P74  | 15x50   | 59.75 | 4025.47 | 7.1        | 7.1        | 1000              | 0                 | 0               | 0.0             | 0.0             | 0.0             |
| P75  | 15x50   | 60.50 | 4025.46 | 12.1       | 11.5       | 0                 | 0                 | -400            | 400             | 2.4             | 0.0             |
| P76  | 15x50   | 61.25 | 4025.45 | 6.0        | 6.0        | 0                 | 0                 | -300            | 0               | 0.0             | 0.0             |
| P77  | 15x50   | 62.00 | 4025.44 | 8.9        | 8.6        | 0                 | 0                 | -400            | 0               | 0.0             | 0.0             |
| P78  | 15x50   | 62.75 | 4025.43 | 5.0        | 4.8        | 300               | 0                 | 0               | 0.0             | 0.0             | 0.0             |
| P79  | 15x50   | 63.50 | 4025.42 | 5.9        | 5.6        | 400               | 0                 | 0               | 0.0             | 0.2             | 0.0             |
| P80  | 15x50   | 64.25 | 4025.41 | 6.6        | 6.1        | 0                 | 0                 | -300            | 0               | 0.0             | 0.4             |
| P81  | 15x50   | 65.00 | 4025.40 | 13.3       | 13.1       | 0                 | 0                 | -100            | 2000            | 0.0             | -2.0            |
| P82  | 15x50   | 65.75 | 4025.39 | 8.1        | 8.1        | 0                 | 0                 | -400            | 0               | 0.0             | 0.0             |
| P83  | 15x50   | 66.50 | 4025.38 | 3.2        | 2.8        | 1000              | 0                 | 0               | -1300           | 0.0             | -0.2            |
| P84  | 15x50   | 67.25 | 4025.37 | 5.2        | 5.0        | 0                 | -1800             | 100             | 0.0             | -4.4            | 0.0             |
| P85  | 15x50   | 68.00 | 4025.36 | 6.0        | 5.4        | 400               | -200              | 0               | 0.0             | 0.0             | -1.7            |
| P86  | 15x50   | 68.75 | 4025.35 | 3.9        | 3.5        | 0                 | -700              | 100             | 0.0             | 0.0             | 0.0             |
| P87  | 15x50   | 69.50 | 4025.34 | 4.1        | 4.1        | 600               | 0                 | 0               | 0.0             | 0.0             | 0.0             |
| P88  | 15x50   | 70.25 | 4025.33 | 11.1       | 11.0       | 0                 | 0                 | -300            | 0               | 0.0             | -2.2            |
| P89  | 15x50   | 71.00 | 4025.32 | 5.2        | 5.0        | 700               | 0                 | -1600           | 0               | 0.0             | 0.0             |
| P90  | 15x50   | 71.75 | 4025.31 | 11.7       | 11.9       | 0                 | 0                 | 2000            | 0               | 0.0             | 0.0             |
| P91  | 15x50   | 72.50 | 4025.30 | 11.9       | 11.9       | 0                 | 0                 | -1300           | 0               | 0.0             | 0.0             |
| P92  | 15x50   | 73.25 | 4025.29 | 4.3        | 4.3        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P93  | 15x50   | 74.00 | 4025.28 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P94  | 15x50   | 74.75 | 4025.27 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P95  | 15x50   | 75.50 | 4025.26 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P96  | 15x50   | 76.25 | 4025.25 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P97  | 15x50   | 77.00 | 4025.24 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P98  | 15x50   | 77.75 | 4025.23 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P99  | 15x50   | 78.50 | 4025.22 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P100 | 15x50   | 79.25 | 4025.21 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P101 | 15x50   | 80.00 | 4025.20 | 4.3        | 4.1        | 0                 | 0                 | -400            | 0               | 0.0             | -1.6            |
| P102 | 15x50</ |       |         |            |            |                   |                   |                 |                 |                 |                 |