

UR-A376CL POINT LOADINGS

Calculation of reaction forces of the outriggers for model **URA376CL with fully extended outriggers**

Working radius **2400mm
Rated load **2900kg**
Number of booms **1****



| Angle | OR1 | OR2 | OR3 | OR4 |
|------------|-------------|-------------|-------------|-------------|
| 0 | 3030 | 3030 | 610 | 610 |
| 5 | 2926 | 3127 | 715 | 513 |
| 10 | 2814 | 3215 | 826 | 425 |
| 15 | 2697 | 3295 | 943 | 346 |
| 20 | 2575 | 3364 | 1066 | 276 |
| 25 | 2448 | 3423 | 1192 | 217 |
| 30 | 2318 | 3472 | 1322 | 168 |
| 35 | 2186 | 3510 | 1455 | 131 |
| 40 | 2052 | 3563 | 1588 | 104 |
| 45 | 1918 | 3551 | 1722 | 90 |
| 50 | 1795 | 3554 | 1855 | 86 |
| 55 | 1654 | 3545 | 1986 | 95 |
| 60 | 1526 | 3525 | 2114 | 115 |
| 65 | 1401 | 3493 | 2239 | 147 |
| 70 | 1281 | 3451 | 2359 | 190 |
| 75 | 1167 | 3397 | 2473 | 243 |
| 80 | 1059 | 3333 | 2581 | 307 |
| 85 | 959 | 3259 | 2681 | 382 |
| 90 | 867 | 3175 | 2774 | 465 |
| 95 | 783 | 3083 | 2857 | 558 |
| 100 | 709 | 2982 | 2931 | 658 |
| 105 | 645 | 2875 | 2996 | 766 |
| 110 | 591 | 2780 | 3049 | 880 |
| 115 | 548 | 2640 | 3092 | 1000 |
| 120 | 517 | 2516 | 3124 | 1124 |
| 125 | 496 | 2387 | 3144 | 1253 |
| 130 | 488 | 2256 | 3152 | 1384 |
| 135 | 491 | 2123 | 3149 | 1517 |
| 140 | 506 | 1990 | 3134 | 1651 |
| 145 | 532 | 1856 | 3108 | 1784 |
| 150 | 570 | 1724 | 3071 | 1916 |
| 155 | 618 | 1594 | 3022 | 2046 |
| 160 | 678 | 1467 | 2963 | 2173 |
| 165 | 747 | 1345 | 2893 | 2296 |
| 170 | 826 | 1227 | 2814 | 2413 |
| 175 | 915 | 1116 | 2725 | 2524 |
| 180 | 1012 | 1012 | 2629 | 2629 |
| Max | 3030 | 3554 | 3963 | 2629 |

All units in kg

UR-A376CL POINT LOADINGS

Calculation of reaction forces of the outriggers for model **URA376CL with fully extended outriggers**

Working radius **2400mm
Rated load **2900kg**
Number of booms **1+2****



| Angle | OR1 | OR2 | OR3 | OR4 |
|-------|------|------|------|------|
| 0 | 3043 | 3043 | 599 | 599 |
| 5 | 2938 | 3141 | 705 | 501 |
| 10 | 2825 | 3230 | 817 | 412 |
| 15 | 2706 | 3311 | 936 | 332 |
| 20 | 2582 | 3381 | 1060 | 261 |
| 25 | 2454 | 3441 | 1188 | 201 |
| 30 | 2323 | 3490 | 1320 | 152 |
| 35 | 2189 | 3528 | 1453 | 114 |
| 40 | 2054 | 3555 | 1589 | 87 |
| 45 | 1918 | 3570 | 1724 | 72 |
| 50 | 1784 | 3573 | 1858 | 69 |
| 55 | 1651 | 3564 | 1991 | 78 |
| 60 | 1521 | 3544 | 2121 | 98 |
| 65 | 1395 | 3512 | 2247 | 130 |
| 70 | 1274 | 3469 | 2368 | 174 |
| 75 | 1158 | 3414 | 2484 | 228 |
| 80 | 1049 | 3349 | 2593 | 293 |
| 85 | 948 | 3274 | 2694 | 368 |
| 90 | 854 | 3190 | 2788 | 452 |
| 95 | 770 | 3096 | 2872 | 546 |
| 100 | 695 | 2995 | 2947 | 648 |
| 105 | 630 | 2886 | 3012 | 757 |
| 110 | 576 | 2770 | 3067 | 872 |
| 115 | 532 | 2649 | 3110 | 993 |
| 120 | 500 | 2523 | 3142 | 1119 |
| 125 | 480 | 2393 | 3162 | 1249 |
| 130 | 471 | 2260 | 3171 | 1382 |
| 135 | 474 | 2126 | 3168 | 1516 |
| 140 | 489 | 1990 | 3153 | 1652 |
| 145 | 516 | 1855 | 3126 | 1787 |
| 150 | 554 | 1722 | 3088 | 1921 |
| 155 | 603 | 1590 | 3039 | 2052 |
| 160 | 663 | 1462 | 2979 | 2180 |
| 165 | 734 | 1338 | 2909 | 2304 |
| 170 | 814 | 1219 | 2829 | 2423 |
| 175 | 903 | 1107 | 2739 | 2536 |
| 180 | 1001 | 1001 | 2641 | 2641 |
| Max | 3043 | 3573 | 3171 | 2641 |

All units in kg

UR-A376CL POINT LOADINGS

Calculation of reaction forces of the outriggers for model URA376CL with fully extended outriggers

Working radius 7840mm

Rated load 630kg

Number of booms 1+2+3



| Angle | OR1 | OR2 | OR3 | OR4 |
|-------|------|------|------|------|
| 0 | 2042 | 2042 | 164 | 164 |
| 5 | 1947 | 2130 | 259 | 76 |
| 10 | 1841 | 2215 | 355 | 0 |
| 15 | 1662 | 2359 | 390 | 0 |
| 20 | 1487 | 2486 | 438 | 0 |
| 25 | 1318 | 2594 | 500 | 0 |
| 30 | 1155 | 2682 | 574 | 0 |
| 35 | 1001 | 2751 | 660 | 0 |
| 40 | 855 | 2799 | 757 | 0 |
| 45 | 720 | 2862 | 866 | 0 |
| 50 | 597 | 2831 | 984 | 0 |
| 55 | 485 | 2816 | 1111 | 0 |
| 60 | 387 | 2779 | 1246 | 0 |
| 65 | 302 | 2721 | 1388 | 0 |
| 70 | 232 | 2644 | 1536 | 0 |
| 75 | 177 | 2546 | 1689 | 0 |
| 80 | 137 | 2429 | 1845 | 0 |
| 85 | 113 | 2294 | 2004 | 0 |
| 90 | 73 | 2174 | 2133 | 32 |
| 95 | 0 | 2087 | 2211 | 113 |
| 100 | 0 | 1928 | 2346 | 137 |
| 105 | 0 | 1772 | 2463 | 177 |
| 110 | 0 | 1619 | 2561 | 232 |
| 115 | 0 | 1471 | 2639 | 302 |
| 120 | 0 | 1329 | 2696 | 387 |
| 125 | 0 | 1193 | 2733 | 485 |
| 130 | 0 | 1066 | 2749 | 597 |
| 135 | 0 | 948 | 2743 | 720 |
| 140 | 0 | 840 | 2716 | 855 |
| 145 | 0 | 742 | 2668 | 1001 |
| 150 | 0 | 656 | 2600 | 1155 |
| 155 | 0 | 582 | 2511 | 1318 |
| 160 | 0 | 521 | 2403 | 1487 |
| 165 | 0 | 473 | 2277 | 1662 |
| 170 | 37 | 401 | 2169 | 1804 |
| 175 | 117 | 300 | 2089 | 1906 |
| 180 | 205 | 205 | 2001 | 2001 |
| Max | 2042 | 2831 | 2749 | 2001 |

All units in kg

UR-A376CL POINT LOADINGS

Calculation of reaction forces of the outriggers for model **URA376CL with fully extended outriggers**

Working radius **9990mm**
Rated load **430kg**
Number of booms **1+2+3+4**



| Angle | OR1 | OR2 | OR3 | OR4 |
|-------|------|------|------|------|
| 0 | 1922 | 1922 | 160 | 160 |
| 5 | 1831 | 2006 | 250 | 76 |
| 10 | 1734 | 2084 | 346 | 0 |
| 15 | 1563 | 2222 | 379 | 0 |
| 20 | 1396 | 2342 | 425 | 0 |
| 25 | 1235 | 2445 | 483 | 0 |
| 30 | 1080 | 2530 | 554 | 0 |
| 35 | 932 | 2595 | 636 | 0 |
| 40 | 794 | 2641 | 729 | 0 |
| 45 | 665 | 2666 | 832 | 0 |
| 50 | 547 | 2672 | 945 | 0 |
| 55 | 440 | 3657 | 1066 | 0 |
| 60 | 346 | 2622 | 1195 | 0 |
| 65 | 266 | 2567 | 1331 | 0 |
| 70 | 199 | 2493 | 1472 | 0 |
| 75 | 146 | 2399 | 1618 | 0 |
| 80 | 108 | 2288 | 1767 | 0 |
| 85 | 85 | 2159 | 1919 | 0 |
| 90 | 44 | 2048 | 2038 | 34 |
| 95 | 0 | 1939 | 2139 | 85 |
| 100 | 0 | 1788 | 2268 | 108 |
| 105 | 0 | 1638 | 2379 | 146 |
| 110 | 0 | 1493 | 2472 | 199 |
| 115 | 0 | 1351 | 2547 | 266 |
| 120 | 0 | 1216 | 2602 | 346 |
| 125 | 0 | 1087 | 2637 | 440 |
| 130 | 0 | 966 | 2651 | 547 |
| 135 | 0 | 853 | 2646 | 665 |
| 140 | 0 | 750 | 2620 | 794 |
| 145 | 0 | 656 | 2575 | 932 |
| 150 | 0 | 574 | 2509 | 1080 |
| 155 | 0 | 504 | 2425 | 1235 |
| 160 | 0 | 445 | 2322 | 1396 |
| 165 | 0 | 399 | 2201 | 1563 |
| 170 | 9 | 357 | 2073 | 1725 |
| 175 | 86 | 260 | 1996 | 1821 |
| 180 | 170 | 170 | 1912 | 1912 |
| Max | 1922 | 2672 | 2651 | 1912 |

All units in kg

UR-A376CL POINT LOADINGS

Calculation of reaction forces of the outriggers for model **URA376CL with fully extended outriggers**

Working radius **12140mm
Rated load **230kg**
Number of booms **1+2+3+4+5****



| Angle | OR1 | OR2 | OR3 | OR4 |
|-------|------|------|------|------|
| 0 | 1684 | 1684 | 273 | 273 |
| 5 | 1610 | 1753 | 347 | 204 |
| 10 | 1531 | 1815 | 426 | 142 |
| 15 | 1448 | 1872 | 509 | 86 |
| 20 | 1361 | 1921 | 596 | 36 |
| 25 | 1265 | 1969 | 680 | 0 |
| 30 | 1138 | 2038 | 738 | 0 |
| 35 | 1018 | 2091 | 805 | 0 |
| 40 | 905 | 2129 | 881 | 0 |
| 45 | 799 | 2150 | 966 | 0 |
| 50 | 703 | 2154 | 1058 | 0 |
| 55 | 616 | 2142 | 1157 | 0 |
| 60 | 539 | 2113 | 1262 | 0 |
| 65 | 473 | 2068 | 1373 | 0 |
| 70 | 418 | 2008 | 1489 | 0 |
| 75 | 362 | 1944 | 1595 | 13 |
| 80 | 286 | 1899 | 1671 | 58 |
| 85 | 215 | 1846 | 1742 | 111 |
| 90 | 149 | 1787 | 1808 | 170 |
| 95 | 90 | 1721 | 1867 | 236 |
| 100 | 37 | 1650 | 1920 | 307 |
| 105 | 0 | 1566 | 1974 | 375 |
| 110 | 0 | 1446 | 2050 | 418 |
| 115 | 0 | 1331 | 2111 | 473 |
| 120 | 0 | 1220 | 2155 | 539 |
| 125 | 0 | 1115 | 2194 | 616 |
| 130 | 0 | 1016 | 2196 | 703 |
| 135 | 0 | 924 | 2192 | 799 |
| 140 | 0 | 839 | 2171 | 905 |
| 145 | 0 | 763 | 2134 | 1018 |
| 150 | 0 | 696 | 2080 | 1138 |
| 155 | 0 | 638 | 2011 | 1265 |
| 160 | 15 | 575 | 1942 | 1382 |
| 165 | 64 | 488 | 1893 | 1469 |
| 170 | 121 | 405 | 1837 | 1552 |
| 175 | 183 | 326 | 1774 | 1631 |
| 180 | 252 | 252 | 1705 | 1705 |
| Max | 1684 | 2154 | 2196 | 1705 |

All units in kg

UR-A376CL POINT LOADINGS

Calculation of reaction forces of the outriggers for model URA376CL with fully extended outriggers

Working radius 14290mm

Rated load 130kg

Number of booms 1+2+3+4+5+6



| Angle | OR1 | OR2 | OR3 | OR4 |
|-------|------|------|------|------|
| 0 | 1562 | 1562 | 335 | 335 |
| 5 | 1496 | 1622 | 400 | 274 |
| 10 | 1427 | 1678 | 470 | 219 |
| 15 | 1353 | 1727 | 543 | 169 |
| 20 | 1276 | 1771 | 620 | 126 |
| 25 | 1197 | 1808 | 699 | 88 |
| 30 | 1116 | 1838 | 780 | 58 |
| 35 | 1033 | 1862 | 863 | 34 |
| 40 | 950 | 1878 | 947 | 18 |
| 45 | 866 | 1888 | 1030 | 9 |
| 50 | 783 | 1889 | 1114 | 7 |
| 55 | 700 | 1884 | 1196 | 12 |
| 60 | 620 | 1871 | 1276 | 25 |
| 65 | 542 | 1852 | 1354 | 45 |
| 70 | 467 | 1825 | 1429 | 71 |
| 75 | 396 | 1791 | 1501 | 105 |
| 80 | 328 | 1751 | 1568 | 145 |
| 85 | 265 | 1705 | 1631 | 192 |
| 90 | 307 | 1652 | 1689 | 244 |
| 95 | 155 | 1595 | 1741 | 302 |
| 100 | 109 | 1532 | 1788 | 365 |
| 105 | 69 | 1464 | 1828 | 432 |
| 110 | 35 | 1393 | 1861 | 504 |
| 115 | 8 | 1318 | 1888 | 579 |
| 120 | 0 | 1228 | 1920 | 645 |
| 125 | 0 | 1135 | 1945 | 713 |
| 130 | 0 | 1048 | 1955 | 789 |
| 135 | 0 | 966 | 1952 | 875 |
| 140 | 0 | 839 | 1933 | 967 |
| 145 | 0 | 825 | 1900 | 1067 |
| 150 | 22 | 744 | 1875 | 1152 |
| 155 | 52 | 663 | 1844 | 1234 |
| 160 | 89 | 583 | 1807 | 1313 |
| 165 | 133 | 507 | 1764 | 1390 |
| 170 | 182 | 433 | 1714 | 1463 |
| 175 | 238 | 364 | 1659 | 1533 |
| 180 | 298 | 298 | 1598 | 1598 |
| Max | 1562 | 1889 | 1955 | 1598 |

All units in kg