

# The Fastener Specialist

Your Construction Supply Specialist

Reg Number: 2018/79047/07 (Pty Ltd)

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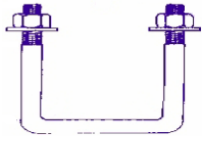
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## FOUNDATION BOLT BREAKDOWN

| TYPE A - FOUNDATION BOLT SQUARE - U-BOLT  | BOLT - SIZE (M) METRIC ROLLED THREAD | BOLT - THREAD DIAMETER (mm) AFTER ROLLED | NOMINAL STRESS AREA (mm <sup>2</sup> ) | YIELD PROOF LOAD (kN) | SAFE WORKING LOAD (50% OF YIELD) SWL (kN) | YIELD / PROOF STRESS CALCULATED ON SWL (Mpa) | MATERIAL GRADE EN8 GRD 6.8 | BOLT - SHANK BLANK DIA (mm) BLACK / ELECTRO - GALV | BOLT - SHANK BLANK DIA (mm) HOT DIP GALV ONLY | BOLT WEIGHT P/METER (Kg) NO PLATES | RECOMMENDED BASE PLATE SIZE (SQ) | BASE PLATE WEIGHT P/SQ (Kg) | BOLT WEIGHT P/M + BASE PLATE (Kg) |
|---|--------------------------------------|--|--|-----------------------|---|--|----------------------------|--|---|------------------------------------|----------------------------------|-----------------------------|-----------------------------------|
|  | M16                                  | 16                                       | 157                                    | 75.36                 | 37.68                                     | 480  | EN8                        | 14.50 - 14.55                                      | 14.03 - 14.05                                 | 1.300                              | -                                | -                           | -                                 |
|   | M20                                  | 20                                       | 245                                    | 117.60                | 58.80                                     | 480  | EN8                        | 18.15 - 18.20                                      | 18.05 - 18.08                                 | 2.040                              | -                                | -                           | -                                 |
|   | M24                                  | 24                                       | 353                                    | 169.44                | 84.72                                     | 480  | EN8                        | 21.80 - 21.85                                      | 21.60 - 21.65                                 | 2.950                              | -                                | -                           | -                                 |
|   | M27                                  | 27                                       | 459                                    | 220.32                | 110.16                                    | 480  | EN8                        | 24.80 - 24.85                                      | 24.60 - 24.65                                 | 3.600                              | -                                | -                           | -                                 |
|   | M30                                  | 30                                       | 561                                    | 269.28                | 134.65                                    | 480  | EN8                        | 27.45 - 27.55                                      | 27.25 - 27.35                                 | 4.600                              | -                                | -                           | -                                 |
|   | M33                                  | 33                                       | 694                                    | 333.12                | 166.56                                    | 480  | EN8                        | 30.55 - 30.65                                      | 30.35 - 30.45                                 | 5.600                              | -                                | -                           | -                                 |
|   | M36                                  | 36                                       | 817                                    | 392.16                | 196.08                                    | 480  | EN8                        | 33.20 - 30.30                                      | 33.00 - 33.10                                 | 6.800                              | -                                | -                           | -                                 |
|   | M39                                  | 39                                       | 976                                    | 468.48                | 234.24                                    | 480  | EN8                        | 36.20 - 36.30                                      | 35.95 - 36.05                                 | 8.000                              | -                                | -                           | -                                 |
|   | M42                                  | 42                                       | 1183                                   | 567.84                | 283.92                                    | 480  | EN8                        | 38.80 - 38.90                                      | 38.55 - 38.65                                 | 9.400                              | -                                | -                           | -                                 |
|   | M45                                  | 45                                       | 1376                                   | 660.48                | 330.24                                    | 480  | EN8                        | 41.85 - 41.95                                      | 41.60 - 41.70                                 | 10.500                             | -                                | -                           | -                                 |
|   | M48                                  | 48                                       | 1556                                   | 746.88                | 373.44                                    | 480  | EN8                        | 44.50 - 44.60                                      | 44.25 - 44.35                                 | 12.200                             | -                                | -                           | -                                 |

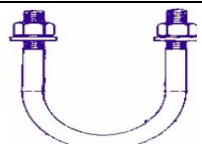
  

| TYPE B - FOUNDATION BOLT L-TYPE   | BOLT - SIZE (M) METRIC ROLLED THREAD | BOLT - THREAD DIAMETER (mm) AFTER ROLLED | NOMINAL STRESS AREA (mm <sup>2</sup> ) | YIELD PROOF LOAD (kN) | SAFE WORKING LOAD (50% OF YIELD) SWL (kN) | YIELD / PROOF STRESS CALCULATED ON SWL (Mpa) | MATERIAL GRADE EN8 GRD 6.8 | BOLT - SHANK BLANK DIA (mm) BLACK / ELECTRO - GALV | BOLT - SHANK BLANK DIA (mm) HOT DIP GALV ONLY | BOLT WEIGHT (Kg) | RECOMMENDED BASE PLATE SIZE (SQ) | BASE PLATE WEIGHT P/SQ (Kg) | BOLT WEIGHT P/M + BASE PLATE (Kg) |
|---|--------------------------------------|--|--|-----------------------|---|--|----------------------------|--|---|------------------|----------------------------------|-----------------------------|-----------------------------------|
|  | M16                                  | 16                                       | 157                                    | 75.36                 | 37.68                                     | 480  | EN8                        | 14.50 - 14.55                                      | 14.03 - 14.05                                 | 1.300            | -                                | -                           | -                                 |
|   | M20                                  | 20                                       | 245                                    | 117.60                | 58.80                                     | 480  | EN8                        | 18.15 - 18.20                                      | 18.05 - 18.08                                 | 2.040            | -                                | -                           | -                                 |
|   | M24                                  | 24                                       | 353                                    | 169.44                | 84.72                                     | 480  | EN8                        | 21.80 - 21.85                                      | 21.60 - 21.65                                 | 2.950            | -                                | -                           | -                                 |
|   | M27                                  | 27                                       | 459                                    | 220.32                | 110.16                                    | 480  | EN8                        | 24.80 - 24.85                                      | 24.60 - 24.65                                 | 3.600            | -                                | -                           | -                                 |
|   | M30                                  | 30                                       | 561                                    | 269.28                | 134.65                                    | 480  | EN8                        | 27.45 - 27.55                                      | 27.25 - 27.35                                 | 4.600            | -                                | -                           | -                                 |
|   | M33                                  | 33                                       | 694                                    | 333.12                | 166.56                                    | 480  | EN8                        | 30.55 - 30.65                                      | 30.35 - 30.45                                 | 5.600            | -                                | -                           | -                                 |
|   | M36                                  | 36                                       | 817                                    | 392.16                | 196.08                                    | 480  | EN8                        | 33.20 - 30.30                                      | 33.00 - 33.10                                 | 6.800            | -                                | -                           | -                                 |
|   | M39                                  | 39                                       | 976                                    | 468.48                | 234.24                                    | 480  | EN8                        | 36.20 - 36.30                                      | 35.95 - 36.05                                 | 8.000            | -                                | -                           | -                                 |
|   | M42                                  | 42                                       | 1183                                   | 567.84                | 283.92                                    | 480  | EN8                        | 38.80 - 38.90                                      | 38.55 - 38.65                                 | 9.400            | -                                | -                           | -                                 |
|   | M45                                  | 45                                       | 1376                                   | 660.48                | 330.24                                    | 480  | EN8                        | 41.85 - 41.95                                      | 41.60 - 41.70                                 | 10.500           | -                                | -                           | -                                 |
|   | M48                                  | 48                                       | 1556                                   | 746.88                | 373.44                                    | 480  | EN8                        | 44.50 - 44.60                                      | 44.25 - 44.35                                 | 12.200           | -                                | -                           | -                                 |

| TYPE C - FOUNDATION BOLT TIE ROD - WITH WELDED BASE PLATE                          | BOLT - SIZE (M) METRIC ROLLED THREAD | BOLT - THREAD DIAMETER (mm) | NOMINAL STRESS AREA (mm <sup>2</sup> ) | YIELD PROOF LOAD (kN) | SAFE WORKING LOAD (50% OF YIELD) SWL (kN) | YIELD / PROOF STRESS CALCULATED ON SWL (Mpa) | MATERIAL GRADE EN8 GRD 6.8 | BOLT - SHANK BLANK DIA (mm) BLACK / ELECTRO - GALV | BOLT - SHANK BLANK DIA (mm) HOT DIP GALV ONLY | BOLT WEIGHT (Kg) | RECOMMENDED BASE PLATE SIZE (SQ) | BASE PLATE WEIGHT P/SQ (Kg) | BOLT WEIGHT P/M + BASE PLATE (Kg) |
|--|--------------------------------------|-----------------------------|--|-----------------------|---|--|----------------------------|--|---|------------------|----------------------------------|-----------------------------|-----------------------------------|
|  | M16                                  | 16                          | 157                                    | 75.36                 | 37.68                                     | 480  | EN8                        | 14.50 - 14.55                                      | 14.03 - 14.05                                 | 1.300            | 70X12                            | 0.462                       | 1.762                             |
|  | M20                                  | 20                          | 245                                    | 117.60                | 58.80                                     | 480  | EN8                        | 18.15 - 18.20                                      | 18.05 - 18.08                                 | 2.040            | 70X12                            | 0.462                       | 2.502                             |
|  | M24                                  | 24                          | 353                                    | 169.44                | 84.72                                     | 480  | EN8                        | 21.80 - 21.85                                      | 21.60 - 21.65                                 | 2.950            | 70X12                            | 0.462                       | 3.412                             |
|  | M27                                  | 27                          | 459                                    | 220.32                | 110.16                                    | 480  | EN8                        | 24.80 - 24.85                                      | 24.60 - 24.65                                 | 3.600            | 70X12                            | 0.462                       | 4.062                             |
|  | M30                                  | 30                          | 561                                    | 269.28                | 134.65                                    | 480  | EN8                        | 27.45 - 27.55                                      | 27.25 - 27.35                                 | 4.600            | 100X16                           | 1.256                       | 5.856                             |
|  | M33                                  | 33                          | 694                                    | 333.12                | 166.56                                    | 480  | EN8                        | 30.55 - 30.65                                      | 30.35 - 30.45                                 | 5.600            | 100X16                           | 1.256                       | 6.856                             |
|  | M36                                  | 36                          | 817                                    | 392.16                | 196.08                                    | 480  | EN8                        | 33.20 - 30.30                                      | 33.00 - 33.10                                 | 6.800            | 100X16                           | 1.256                       | 8.056                             |
|  | M39                                  | 39                          | 976                                    | 468.48                | 234.24                                    | 480  | EN8                        | 36.20 - 36.30                                      | 35.95 - 36.05                                 | 8.000            | 130X16                           | 2.123                       | 10.123                            |
|  | M42                                  | 42                          | 1183                                   | 567.84                | 283.92                                    | 480  | EN8                        | 38.80 - 38.90                                      | 38.55 - 38.65                                 | 9.400            | 130X16                           | 2.123                       | 11.523                            |
|  | M45                                  | 45                          | 1376                                   | 660.48                | 330.24                                    | 480  | EN8                        | 41.85 - 41.95                                      | 41.60 - 41.70                                 | 10.500           | 130X16                           | 2.123                       | 12.623                            |
|  | M48                                  | 48                          | 1556                                   | 746.88                | 373.44                                    | 480  | EN8                        | 44.50 - 44.60                                      | 44.25 - 44.35                                 | 12.200           | 150X20                           | 3.533                       | 15.733                            |
| M52  | 52                                   | 1848                        | 887.04                                 | 443.52                | 480                                       | EN8  | 48.50 - 48.60              | 48.25 - 48.35                                      | 14.500  | 150X20           | 3.533                            | 18.033                      |                                   |
| M56  | 56                                   | 2136                        | 1025.28                                | 512.64                | 480                                       | EN8  | 52.15 - 52.25              | 51.85 - 51.95                                      | 17.000  | 150X20           | 3.533                            | 20.533                      |                                   |
| M64  | 64                                   | 2809                        | 1348.32                                | 674.16                | 480                                       | EN8  | 59.80 - 59.90              | 59.50 - 59.60                                      | 22.000  | 200X50           | 15.700                           | 37.700                      |                                   |
| M72  | 72                                   | 3633                        | 1743.84                                | 871.92                | 480                                       | EN8  | 68.00 - 68.10              | 67.70 - 67.80                                      | 28.500  | 200X50           | 15.700                           | 44.200                      |                                   |
| M80  | 80                                   | 4450                        | 2184.00                                | 1092.00               | 480                                       | EN8  | 76.10 - 76.20              | 75.80 - 75.90                                      | 35.700  | 300X60           | 42.390                           | 78.090                      |                                   |

| TYPE D - FOUNDATION BOLT ROUND U-BOLT   | BOLT - SIZE (M) METRIC ROLLED THREAD | BOLT - THREAD DIAMETER (mm) AFTER ROLLED | NOMINAL STRESS AREA (mm <sup>2</sup> ) | YIELD PROOF LOAD (kN) | SAFE WORKING LOAD (50% OF YIELD) SWL (kN) | YIELD / PROOF STRESS CALCULATED ON SWL (Mpa) | MATERIAL GRADE EN8 GRD 6.8 | BOLT - SHANK BLANK DIA (mm) BLACK / ELECTRO - GALV | BOLT - SHANK BLANK DIA (mm) HOT DIP GALV ONLY | BOLT WEIGHT (Kg) | RECOMMENDED BASE PLATE SIZE (SQ) | BASE PLATE WEIGHT P/SQ (Kg) | BOLT WEIGHT P/M + BASE PLATE (Kg) |
|---|--------------------------------------|--|--|-----------------------|---|--|----------------------------|--|---|------------------|----------------------------------|-----------------------------|-----------------------------------|
|  | M16                                  | 16                                       | 157                                    | 75.36                 | 37.68                                     | 480  | EN8                        | 14.50 - 14.55                                      | 14.03 - 14.05                                 | 1.300            | -                                | -                           | -                                 |
|   | M20                                  | 20                                       | 245                                    | 117.60                | 58.80                                     | 480  | EN8                        | 18.15 - 18.20                                      | 18.05 - 18.08                                 | 2.040            | -                                | -                           | -                                 |
|   | M24                                  | 24                                       | 353                                    | 169.44                | 84.72                                     | 480  | EN8                        | 21.80 - 21.85                                      | 21.60 - 21.65                                 | 2.950            | -                                | -                           | -                                 |
|   | M27                                  | 27                                       | 459                                    | 220.32                | 110.16                                    | 480  | EN8                        | 24.80 - 24.85                                      | 24.60 - 24.65                                 | 3.600            | -                                | -                           | -                                 |
|   | M30                                  | 30                                       | 561                                    | 269.28                | 134.65                                    | 480  | EN8                        | 27.45 - 27.55                                      | 27.25 - 27.35                                 | 4.600            | -                                | -                           | -                                 |
|   | M33                                  | 33                                       | 694                                    | 333.12                | 166.56                                    | 480  | EN8                        | 30.55 - 30.65                                      | 30.35 - 30.45                                 | 5.600            | -                                | -                           | -                                 |
|   | M36                                  | 36                                       | 817                                    | 392.16                | 196.08                                    | 480  | EN8                        | 33.20 - 30.30                                      | 33.00 - 33.10                                 | 6.800            | -                                | -                           | -                                 |
|   | M39                                  | 39                                       | 976                                    | 468.48                | 234.24                                    | 480  | EN8                        | 36.20 - 36.30                                      | 35.95 - 36.05                                 | 8.000            | -                                | -                           | -                                 |
|   | M42                                  | 42                                       | 1183                                   | 567.84                | 283.92                                    | 480  | EN8                        | 38.80 - 38.90                                      | 38.55 - 38.65                                 | 9.400            | -                                | -                           | -                                 |
|   | M45                                  | 45                                       | 1376                                   | 660.48                | 330.24                                    | 480  | EN8                        | 41.85 - 41.95                                      | 41.60 - 41.70                                 | 10.500           | -                                | -                           | -                                 |
|   | M48                                  | 48                                       | 1556                                   | 746.88                | 373.44                                    | 480  | EN8                        | 44.50 - 44.60                                      | 44.25 - 44.35                                 | 12.200           | -                                | -                           | -                                 |
| M52   | 52                                   | 1848                                     | 887.04                                 | 443.52                | 480                                       | EN8  | 48.50 - 48.60              | 48.25 - 48.35                                      | 14.500  | -                | -                                | -                           |                                   |

