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**US Metric Chart A449/A325**  
**1/2"-1" 92 KSI Yield 120 KSI Tensile**  
**1 1/8"- 1 1/2" 81 KSI Yield 105 KSI Tensile**  
**1 3/4"-3" 58 KSI Yield 90 KSI Tensile**

| Anchor Diameter<br>in. (mm) | Drill Diameter<br>in. (mm) | Tensile Stress<br>Area | Embed Depth<br>in. (mm) | Yield<br>lb (kn)   | Tensile<br>lb. (kn) | Shear<br>lb. (kn) |
|-----------------------------|----------------------------|------------------------|-------------------------|--------------------|---------------------|-------------------|
| 1/2<br>(12.7)               | 5/8<br>(15.9)              | 0.142                  | 5<br>(127)              | 13060<br>(58.1)    | 17060<br>(75.8)     | 8530<br>(38)      |
| 5/8<br>(15.9)               | 3/4<br>(19.1)              | 0.226                  | 7<br>(178)              | 20790<br>(92.5)    | 27120<br>(120.6)    | 13600<br>(60.5)   |
| 3/4<br>(19.1)               | 7/8<br>(22.2)              | 0.334                  | 7 1/2<br>(190)          | 30730<br>(136.7)   | 40080<br>(178.2)    | 20040<br>(89.14)  |
| 7/8<br>(22.2)               | 1<br>(25.4)                | 0.462                  | 8 1/2<br>(216)          | 42400<br>(188.6)   | 55440<br>(246.6)    | 27720<br>(123.3)  |
| 1<br>(25.4)                 | 1 1/8<br>(28.6)            | 0.606                  | 9 1/2<br>(241)          | 55750<br>(247.1)   | 72720<br>(323.5)    | 36360<br>(161.7)  |
| 1 1/8<br>(28.6)             | 1 1/4<br>(31.8)            | 0.763                  | 11 1/2<br>(2926)        | 61800<br>(274.9)   | 80120<br>(356.3)    | 40060<br>(178.1)  |
| 1 1/4<br>(31.8)             | 1 3/8<br>(34.9)            | 0.969                  | 14<br>(356)             | 78490<br>(349.1)   | 101700<br>(452.34)  | 50850<br>(226.1)  |
| 1 3/8<br>(34.9)             | 1 1/2<br>(38.1)            | 1.155                  | 17<br>(432)             | 93560<br>(416.1)   | 121300<br>(539.5)   | 60650<br>(269.8)  |
| 1 1/2<br>(38.1)             | 1 3/4<br>(44.4)            | 1.405                  | 21<br>(533)             | 113880<br>(506.6)  | 147500<br>(656.1)   | 73750<br>(328)    |
| 1 3/4<br>(44.4)             | 2<br>(50.8)                | 1.900                  | 24<br>(610)             | 110200<br>(490.2)  | 171000<br>(760.6)   | 85500<br>(380.3)  |
| 2<br>(50.8)                 | 2 1/4<br>(57.2)            | 2.500                  | 26<br>(660)             | 145000<br>(645)    | 225000<br>(1000.8)  | 112500<br>(500.4) |
| 2 1/4<br>(57.2)             | 2 1/2<br>(63.5)            | 3.250                  | 30<br>(762)             | 188500<br>(838)    | 292500<br>(1300)    | 146250<br>(651)   |
| 2 1/2<br>(63.5)             | 2 3/4<br>(69.9)            | 4.000                  | 34<br>(864)             | 232000<br>(1032.8) | 360000<br>(1615.8)  | 180000<br>(800.7) |
| 2 3/4<br>(69.9)             | 3<br>(76.2)                | 4.930                  | 40<br>(1016)            | 285940<br>(1270)   | 443700<br>(1970)    | 221850<br>(987)   |
| 3<br>(76.2)                 | 3 1/4<br>(82.5)            | 5.970                  | 50<br>(1220)            | 346300<br>(1540.4) | 537300<br>(2390)    | 268650<br>(1195)  |

Steel Strength A449/A325  
 Yield =  $F_y \times$  Tensile Stress Area  
 Tensile =  $F_t \times$  Tensile Stress Area  
 Shear =  $.50 \times$  Ultimate Steel Strength

Based on 3500 psi or greater compressive strength concrete 28 days old.

All values based on properly installed Keligrout/Keligrout 101-p per Technical Data Sheets