# DRILL PIPE

## Drill Pipes

Drill Pipes are all strictly conformed to API 5D and API SPEC 7 standard.Standard drill pipes are shown as below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SIZEIN (MM)** | **WEIGHT DESIGNATION** | **WEIGHT** | **WALL THICKNESS** | **GRADE** | **UPSET END TYPE** |
| **LB/FT** | **KG/M** | **IN** | **MM** |
| **2 3/8" (60.3)** | 6.65 | 6.27 | 9.33 | 0.280 | 7.11 | E,X,G,S | EU |
| **2 7/8" (73.0)** | 10.40 | 9.72 | 14.47 | 0.362 | 9.19 | E,X,G,S | IU or EU |
| **3 1/2" (88.9)** | 9.50 | 8.81 | 13.12 | 0.254 | 6.45 | E | IU or EU |
| **3 1/2" (88.9)** | 13.30 | 12.32 | 18.34 | 0.368 | 9.35 | E,X,G,S | IU or EU |
| **3 1/2" (88.9)** | 15.50 | 14.64 | 21.79 | 0.449 | 11.40 | E | IU or EU |
| **3 1/2" (88.9)** | 15.50 | 14.64 | 21.79 | 0.449 | 11.40 | X,G,S | EU or IEU |
| **4" (101.6)** | 14.00 | 12.95 | 19.27 | 0.330 | 8.38 | E,X,G,S | IU or EU |
| **4 1/2" (114.3)** | 13.75 | 12.25 | 18.23 | 0.271 | 6.88 | E | IU or EU |
| **4 1/2" (114.3)** | 16.60 | 15 | 22.32 | 0.337 | 8.56 | E,X,G,S | EU or IEU |
| **4 1/2" (114.3)** | 20.00 | 18.71 | 27.84 | 0.430 | 10.92 | E,X,G,S | EU or IEU |
| **5" (127.0)** | 16.25 | 14.88 | 22.16 | 0.296 | 7.52 | X,G,S | IU |
| **5" (127.0)** | 19.50 | 17.95 | 26.70 | 0.362 | 9.19 | E | IEU |
| **5" (127.0)** | 19.50 | 17.95 | 26.70 | 0.362 | 9.19 | X,G,S | EU or IEU |
| **5" (127.0)** | 25.60 | 24.05 | 35.80 | 0.500 | 12.70 | E | IEU |
| **5" (127.0)** | 25.60 | 24.05 | 35.80 | 0.500 | 12.70 | X,G,S | EU or IEU |
| **5 1/2" (139.7)** | 21.90 | 19.83 | 29.52 | 0.361 | 9.17 | E,X,G,S | IEU |
| **5 1/2" (139.7)** | 24.70 | 22.56 | 33.57 | 0.415 | 10.54 | E,X,G,S | IEU |
| **6 5/8" (168.3)** | 25.20 | 22.21 | 33.04 | 0.330 | 8.38 | E,X,G,S | IEU |
| **6 5/8" (168.3)** | 27.72 | 24.24 | 36.06 | 0.362 | 9.19 | E,X,G,S | IEU |

There are four kinds of grades, E-75, X-95, G-105 and S-135.AsX-95 type isseldom used now.G-105 and S-135 drill pipes are recommended.

Tool joint thread and Tong space

| **THREAD** | **SIZE AND STYLE** | **WEIGHT** | **GRADE** | **PIN TONG** | **BOX TONG** | **BEVEL DIA.** | **TORSIONAL RATIO** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **NC26** | 2 3/8" EU | 6.65 | E-75 | 7" | 8" | 3 17/64" | 1.10 |
|  |  |  | G-105 | 7" | 8" | 3 17/64" | 0.79 |
| **NC31** | 2 7/8" EU | 10.40 | E-75 | 7" | 9" | 3 61/64" | 1.03 |
|  |  |  | G-105 | 7" | 9" | 3 61/64" | 0.82 |
|  |  |  | S-135 | 7" | 9" | 3 61/64" | 0.82 |
| **NC38** | 3 1/2" EU | 13.30 | E-75 | 8" | 10 1/2" | 4 37/64" | 0.98 |
|  |  |  | G-105 | 8" | 10 1/2" | 4 37/64" | 0.96 |
|  |  |  | S-135 | 8" | 10 1/2" | 4 37/64" | 0.80 |
|  |  | 15.50 | E-75 | 8" | 10 1/2" | 4 37/64" | 0.97 |
|  |  |  | G-105 | 8" | 10 1/2" | 4 37/64" | 0.90 |
| **NC40** | 3 1/2" EU | 15.50 | S-135 | 7" | 10" | 5 1/64" | 0.87 |
|  | 4" IU | 14.00 | E-75 | 7" | 10" | 5 1/64" | 1.01 |
|  |  |  | G-105 | 7" | 10" | 5 1/64" | 0.93 |
|  |  |  | S-135 | 7" | 10" | 5 1/64" | 0.97 |
| **NC46** | 4" EU | 14.00 | E-75 | 7" | 10" | 5 23/32" | 1.43 |
|  |  |  | G-105 | 7" | 10" | 5 23/32" | 1.02 |
|  |  |  | S-135 | 7" | 10" | 5 23/32" | 0.94 |
|  | 4 1/2" IEU | 16.60 | E-75 | 7" | 10" | 5 23/32" | 1.09 |
|  |  |  | G-105 | 7" | 10" | 5 23/32" | 0.91 |
|  |  |  | S-135 | 7" | 10" | 5 23/32" | 0.81 |
|  | 4 1/2" IEU | 20.00 | E-75 | 7" | 10" | 5 23/32" | 1.07 |
|  |  |  | G-105 | 7" | 10" | 5 23/32" | 0.96 |
|  |  |  | S-135 | 7" | 10" | 5 23/32" | 0.81 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **NC50** | 4 1/2" EU | 16.60 | E-75 | 7" | 10" | 6 1/16" | 1.23 |
|  |  |  | G-105 | 7" | 10" | 6 1/16" | 0.88 |
|  |  |  | S-135 | 7" | 10" | 6 1/16" | 0.81 |
|  | 4 1/2" EU | 20.00 | E-75 | 7" | 10" | 6 1/16" | 1.02 |
|  |  |  | G-105 | 7" | 10" | 6 1/16" | 0.86 |
|  |  |  | S-135 | 7" | 10" | 6 1/16" | 0.87 |
|  | 5" IEU | 19.50 | E-75 | 7" | 10" | 6 1/16" | 0.92 |
|  |  |  | G-105 | 7" | 10" | 6 1/16" | 0.89 |
|  |  |  | S-135 | 7" | 10" | 6 1/16" | 0.86 |
|  | 5" IEU | 25.60 | E-75 | 7" | 10" | 6 1/16" | 0.86 |
|  |  |  | G-105 | 7" | 10" | 6 1/16" | 0.87 |
| **5 1/2" FH** | 5" IEU | 19.50 | E-75 | 8" | 10" | 6 23/32" | 1.53 |
|  |  |  | G-105 | 8" | 10" | 6 23/32" | 1.09 |
|  |  |  | S-135 | 8" | 10" | 6 23/32" | 0.98 |
|  | 5" IEU | 25.60 | E-75 | 8" | 10" | 6 23/32" | 1.21 |
|  |  |  | G-105 | 8" | 10" | 6 23/32" | 0.99 |
|  |  |  | S-135 | 8" | 10" | 6 23/32" | 0.83 |
|  | 5 1/2" IEU | 21.90 | E-75 | 8" | 10" | 6 23/32" | 1.11 |
|  |  |  | G-105 | 8" | 10" | 6 23/32" | 1.02 |
|  |  |  | S-135 | 8" | 10" | 6 23/32" | 0.96 |
|  | 5 1/2" IEU | 24.70 | E-75 | 8" | 10" | 6 23/32" | 0.99 |
|  |  |  | G-105 | 8" | 10" | 6 23/32" | 0.92 |
|  |  |  | S-135 | 8" | 10" | 7 3/32" | 0.86 |
| **6 5/8" FH** | 6 5/8" IEU | 25.20 | E-75 | 8" | 11" | 7 45/64" | 1.04 |
|  |  |  | G-105 | 8" | 11" | 7 45/64" | 0.87 |
|  |  |  | S-135 | 8" | 11" | 7 45/64" | 0.86 |
|  | 6 5/8" IEU | 27.70 | E-75 | 8" | 11" | 7 45/64" | 0.96 |
|  |  |  | G-105 | 8" | 11" | 7 45/64" | 0.81 |
|  |  |  | S-135 | 8" | 11" | 7 45/64" | 0.80 |