

The EVRlock QB1-HT Semi-Premium Connection was developed specifically for use in applications where high torque and high strength are a priority. Utilizing the same proven thread form as the EVRlock QB2 Premium Connection, EVRlock QB1-HT replaces the metal-to-metal radial seal with an axial shoulder to provide a connection with improved torque capacity and runnability. With engineered design features that provide the ability to rotate while cementing and eliminate the need for torque turn monitoring, EVRlock QB1-HT also reduces well costs.

## PERFORMANCE PROPERTIES (metric)

| OUTSIDE DIAMETER:            | 114.30mm |         |         | 139.70mm |         | 177.80mm |               | 219.08mm |         | 244.48mm |               | 273.05mm |         |         |
|------------------------------|----------|---------|---------|----------|---------|----------|---------------|----------|---------|----------|---------------|----------|---------|---------|
| <b>Physical Properties</b>   |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| T&C Nom Wt (kg/m)            | 17.30    | 20.10   | 22.50   | 25.30    | 29.80   | 34.20    | 38.70         | 41.70    | 47.60   | 53.60    | 59.50         | 60.30    | 67.70   | 75.90   |
| Wall Thickness (mm)          | 6.35     | 7.37    | 8.56    | 7.72     | 9.17    | 8.05     | 9.19          | 7.72     | 8.94    | 8.94     | 10.03         | 8.89     | 10.16   | 11.43   |
| Inside Diameter (mm)         | 101.60   | 99.56   | 97.18   | 124.26   | 121.36  | 161.70   | 159.42        | 203.64   | 201.20  | 226.50   | 224.40        | 255.30   | 252.70  | 250.20  |
| API Std Drift (mm)           | 98.42    | 96.38   | 94.00   | 121.08   | 118.18  | 158.52   | 156.24        | 200.46   | 198.02  | 222.63   | 220.45        | 251.31   | 248.77  | 246.23  |
| Coupling OD (mm)             | 127.00   | 127.00  | 127.00  | 153.67   | 153.67  | 194.46   | 194.46        | 244.48   | 244.48  | 269.88   | 269.88        | 298.45   | 298.45  | 298.45  |
| Coupling Length (mm)         | 163.32   | 163.32  | 163.32  | 178.56   | 178.56  | 193.80   | 193.80        | 193.80   | 193.80  | 203.96   | 203.96        | 203.96   | 203.96  | 203.96  |
| Make-up Loss (mm)            | 74.04    | 74.04   | 74.04   | 81.66    | 81.66   | 89.28    | 89.28         | 89.28    | 89.28   | 94.36    | 94.36         | 94.36    | 94.36   | 94.36   |
| <b>Mechanical Properties</b> |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| <b>Collapse (kPa)</b>        |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| J55/K55                      | 34,200   | -       | -       | 33,900   | 45,600  | 22,500   | 29,900        | 13,000   | 17,400  | 13,900   | 17,700        | 10,900   | 14,400  | 18,600  |
| L80                          | 43,800   | 58,900  | 76,400  | 43,400   | 60,900  | 26,400   | 37,300        | 14,900   | 21,000  | 16,300   | 21,300        | 11,900   | 17,000  | 22,200  |
| P110                         | 52,300   | 73,700  | 98,900  | 51,600   | 76,500  | 30,500   | 43,000        | 15,200   | 23,600  | 17,000   | 23,900        | 11,900   | 18,000  | 25,200  |
| HCP110                       | 59,600   | 80,000  | 109,100 | 59,200   | 83,300  | 39,000   | 53,800        | -        | -       | -        | 24,300        | -        | -       | -       |
| <b>Burst (kPa)</b>           |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| J55/K55                      | 36,900   | -       | -       | 36,700   | 43,600  | 30,100   | 34,300        | 23,400   | 27,100  | 24,300   | 27,200        | 21,600   | 24,700  | 27,800  |
| L80                          | 53,600   | 62,200  | 72,300  | 53,400   | 63,400  | 43,700   | 49,900        | 34,000   | 39,400  | 35,300   | 39,600        | 31,400   | 35,900  | 40,400  |
| P110/HCP110                  | 73,700   | 85,600  | 92,900  | 73,400   | 87,100  | 60,100   | 68,700        | 46,700   | 54,200  | 48,500   | 54,500        | 43,200   | 49,400  | 55,600  |
| <b>Joint Strength (daN)</b>  |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| <b>UTS</b>                   |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| J55                          | 111,200  | -       | -       | 165,500  | 180,600 | 222,000  | 281,100       | 265,100  | 305,100 | 342,100  | 382,100       | 381,700  | 433,700 | 485,700 |
| K55                          | 141,000  | -       | -       | 209,500  | 228,600 | 281,100  | 355,900       | 335,800  | 386,600 | 433,300  | 484,000       | 483,100  | 549,800 | 615,200 |
| L80                          | 141,000  | 161,900 | 162,800 | 209,500  | 228,600 | 281,100  | 355,900       | 335,800  | 386,600 | 433,300  | 484,000       | 483,100  | 549,800 | 615,200 |
| P110                         | 185,500  | 213,500 | 214,000 | 275,800  | 300,700 | 370,100  | 468,400       | 441,700  | 508,900 | 570,300  | 637,000       | 635,700  | 723,300 | 809,600 |
| <b>YS</b>                    |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| J55/K55                      | 81,800   | -       | -       | 121,400  | 132,100 | 162,800  | 184,600       | 194,400  | 223,700 | 250,900  | 280,200       | 279,800  | 318,000 | 356,300 |
| L80                          | 118,800  | 136,600 | 137,000 | 176,600  | 192,600 | 236,600  | 268,700       | 282,900  | 325,600 | 364,800  | 407,500       | 407,000  | 462,600 | 518,200 |
| P110                         | 163,200  | 187,700 | 188,600 | 242,900  | 264,700 | 325,600  | 369,200       | 388,800  | 447,500 | 501,800  | 560,500       | 559,600  | 636,500 | 712,600 |
| <b>Make-up Torque* (N·m)</b> |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| <b>J55 Window</b>            |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| Optimal                      | 5,400    | 6,800   | 6,800   | 10,800   | 11,500  | 13,600   | <b>22,400</b> | 14,200   | 15,600  | 16,300   | 16,300        | 17,600   | 17,600  | 17,600  |
| (+/-)                        | 800      | 1,000   | 1,000   | 1,600    | 1,700   | 2,000    | <b>3,400</b>  | 2,100    | 2,300   | 2,400    | 2,400         | 2,600    | 2,600   | 2,600   |
| Yield                        | 9,600    | -       | -       | -        | -       | -        | <b>29,800</b> | -        | -       | -        | -             | -        | -       | -       |
| <b>K55 Window</b>            |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| Optimal                      | 5,400    | 6,800   | 6,800   | 10,800   | 11,500  | 13,600   | <b>22,400</b> | 14,200   | 15,600  | 16,300   | 16,300        | 17,600   | 17,600  | 17,600  |
| (+/-)                        | 800      | 1,000   | 1,000   | 1,600    | 1,700   | 2,000    | <b>3,400</b>  | 2,100    | 2,300   | 2,400    | 2,400         | 2,600    | 2,600   | 2,600   |
| Yield                        | 8,500    | -       | -       | -        | -       | -        | <b>29,800</b> | -        | -       | -        | -             | -        | -       | -       |
| <b>L80 Window</b>            |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| Optimal                      | 6,100    | 6,800   | 9,200   | 12,200   | 11,500  | 14,900   | <b>22,400</b> | 21,000   | 15,600  | 16,300   | <b>29,200</b> | 17,600   | 17,600  | 17,600  |
| (+/-)                        | 900      | 1,000   | 1,400   | 1,800    | 1,700   | 2,200    | <b>3,400</b>  | 3,200    | 2,300   | 2,400    | <b>4,400</b>  | 2,600    | 2,600   | 2,600   |
| Yield                        | 10,600   | 13,800  | 15,700  | 21,000   | 24,100  | 25,600   | <b>38,000</b> | 35,000   | 40,100  | 45,600   | <b>49,400</b> | 46,100   | 52,900  | 61,000  |
| <b>P110 Window</b>           |          |         |         |          |         |          |               |          |         |          |               |          |         |         |
| Optimal                      | 8,100    | 6,800   | 9,500   | 12,200   | 11,500  | 13,600   | 13,600        | 14,200   | 15,600  | 16,300   | 16,300        | 17,600   | 17,600  | 17,600  |
| (+/-)                        | 1,200    | 1,000   | 1,400   | 1,800    | 1,700   | 2,000    | 2,000         | 2,100    | 2,300   | 2,400    | 2,400         | 2,600    | 2,600   | 2,600   |
| Yield                        | 13,800   | 15,200  | 16,000  | 19,100   | 21,200  | -        | -             | -        | -       | -        | -             | -        | -       | -       |

\*Yield torque data represent absolute limits. Bolded torque values have been verified by field trials.