IMPERIAL
A - 2 MAX. TORQUE: 1630 FT. LBS. @10k PSI

| Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 2 with 1-1/16" hex | 375" | 987" | 1.50" | 1.55" | $5.264{ }^{\prime \prime}$ | 4.10" | 1.125" |
| A -2 with 1-1/4" hex | . 375 " | 1.096" | 1.50" | 1.77" | $5.264{ }^{4}$ | 4.10 " | $1.125^{\prime \prime}$ |
| A-2 with 1-7/16" hex | . 375 " | 1.204" | 1.50" | 1.99" | $5.264{ }^{\prime \prime}$ | 4.10" | 1.125" |
| A -2 with 1-5/8" hex | . 375 " | $1.312^{\prime \prime}$ | 1.50" | 2.20" | $5.264{ }^{\prime \prime}$ | 4.10" | 1.125" |
| A - 2 with 1-13/16" hex | . 375 " | 1.420" | 1.50" | 2.42" | $5.264{ }^{\prime}$ | 4.10 " | 1.125 |
| A-2 with 2" hex | . 375 " | 1.529" | 1.50" | 2.64 " | $5.264{ }^{\prime \prime}$ | 4.10" | $1.125^{\prime \prime}$ |
| A - 2 with 2-3/16" hex | . 375 " | 1.639" | 1.50" | 2.86 " | $5.264{ }^{\prime \prime}$ | 4.10" | $1.125^{\prime \prime}$ |
| A-2 with 2-3/8" hex | . $375^{\prime \prime}$ | 1.760" | 1.50" | 3.10 " | $5.264{ }^{\prime \prime}$ | 4.10" | 1.125" |

## A - 4 MAX. TORQUE: 3900 FT. LBS. @ 10k PSI

| Description | "A" | 'B" | "C" | 'D" | 'E" | 'F" | "G" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 4 with 1-13/16" hex | .50" | 1.55" | 2.00 " | 2.68 " | 7.02" | 5.47" | $1.50{ }^{\prime \prime}$ |
| A - 4 with 2" hex | .50" | 1.66" | 2.00 " | 2.90" | 7.02" | 5.47" | 1.50" |
| A - 4 with 2-3/16" hex | .50" | 1.76" | 2.00 " | 3.10" | 7.02" | 5.47" | 1.50" |
| A - 4 with 2-3/8" hex | .50" | 1.87" | $2.00{ }^{\prime \prime}$ | $3.32{ }^{\prime \prime}$ | 7.02" | 5.47" | 1.50" |
| A - 4 with 2-9/16" hex | .50" | 1.98" | $2.00{ }^{\prime \prime}$ | 3.54" | 7.02" | 5.47" | 1.50" |
| A - 4 with 2-3/4" hex | .50" | 2.09" | $2.00{ }^{\prime \prime}$ | $3.76{ }^{\prime \prime}$ | 7.02" | 5.47" | 1.50" |
| A - 4 with 2-15/16" hex | .50" | 2.20" | 2.00 " | 3.98" | $7.02{ }^{\prime \prime}$ | 5.47" | 1.50" |
| A-4 with 3-1/8" hex | .50" | 2.30" | 2.00 " | 4.18" | 7.02 " | $5.47{ }^{\prime \prime}$ | 1.50" |

A - 8 MAX. TORQUE: 7560 FT. LBS. @ 10k PSI

| Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 8 with 2-3/16" hex | .625" | 1.94" | 2.50" | 3.36" | 8.78" | 6.84" | 1.88" |
| A - 8 with 2-3/8" hex | .625" | 2.08" | 2.50" | 3.64" | 8.78" | 6.84" | 1.88" |
| A - 8 with 2-9/16" hex | .625" | 2.20 " | 2.50 " | 3.86" | $8.78{ }^{\prime \prime}$ | 6.84" | 1.88" |
| A - 8 with 2-3/4" hex | .625" | $2.34{ }^{\prime \prime}$ | 2.50 " | $4.16{ }^{\prime \prime}$ | $8.78{ }^{\prime \prime}$ | $6.84{ }^{\prime \prime}$ | $1.88{ }^{\prime \prime}$ |
| A - 8 with 2-15/16" hex | .625" | 2.48" | 2.50" | 4.44" | 8.78" | 6.84" | $1.88{ }^{\prime \prime}$ |
| A - 8 with 3-1/8" hex | .625" | $2.61{ }^{\prime \prime}$ | 2.50 " | 4.70" | $8.78{ }^{\prime \prime}$ | 6.84" | 1.88 " |
| A-8 with 3-1/2" hex | .625" | 2.75 " | 2.50 " | 4.98" | 8.78" | 6.84 " | 1.88 " |
| A - 8 with 3-7/8" hex | .625" | 2.88" | 2.50 " | 5.24" | $8.78{ }^{\prime \prime}$ | 6.84" | 1.88" |

## A - 16 MAX. TORQUE: 13,025 FT. LBS. @ 10k PSI

| Description | "A" | "B" | "C" | "D" | 'E" | 'F" | ' ${ }^{\prime}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 16 with 2-3/4" hex | .75" | 2.38 " | 3.00" | 4.13 " | 10.53" | 8.20" | $2.25{ }^{\prime \prime}$ |
| A - 16 with 2-15/16" hex | .75" | 2.45 " | $3.00{ }^{\prime \prime}$ | $4.27^{\prime \prime}$ | 10.53" | 8.2 | $2.25^{\prime \prime}$ |
| A - 16 with 3-1/8" hex | .75" | 2.55 " | $3.00{ }^{\prime \prime}$ | 4.47" | 10.53 " | 8.20" | 2.25 " |
| A-16 with 3-1/2" hex | .75" | $2.77{ }^{\prime \prime}$ | $3.00{ }^{\prime \prime}$ | $4.91{ }^{\prime \prime}$ | 10.53" | 8.20" | 2.25 " |
| A - 16 with 3-7/8"'" hex | .75" | $2.97{ }^{\prime \prime}$ | $3.00{ }^{\prime \prime}$ | 5.31" | 10.53" | 8.20" | 2.25 " |
| A - 16 with 4-1/4" hex | .75" | 3.20 " | 3.0 | 5.7 | 10.5 | 8.2 | 2.25 " |
| A - 16 with 4-5/8" hex | .75" | 3.42 " | 3.00 " | $6.21{ }^{\prime \prime}$ | 10.53" | $8.20 "$ | 2.25 " |
| A -16 with 5" hex | .75" | 3.64" | $3.00^{\prime \prime}$ | 6.65 " | 10.53" | 8.20" | 2.25 " |

## A - 32 MAX. TORQUE: 31,975 FT. LBS. @ 10k PSI

| Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 32 with $3-1 / 2^{\prime \prime}$ hex | 1.00" | 3.02" | 4.00" | 5.20" | 14.00" | 10.94" | 3.00 " |
| A - 32 with 3-7/8" hex | 1.00" | 3.24 " | 4.00" | 5.64" | 14.00 " | 10.94" | $3.00{ }^{\prime \prime}$ |
| A - 32 with 4-1/4" hex | 1.00" | $3.45{ }^{\prime \prime}$ | 4.00" | $6.06{ }^{\prime \prime}$ | 14.00 " | 10.94" | 3.00" |
| A - 32 with 4-5/8" hex | $1.00{ }^{\prime}$ | 3.67 " | 4.00" | 6.50 " | 14.00 " | 10.94" | $3.00{ }^{\prime \prime}$ |
| A - 32 with 5" hex | $1.00{ }^{\prime \prime}$ | 3.89" | 4.00" | $6.94{ }^{\prime \prime}$ | $14.00{ }^{\prime \prime}$ | 10.94" | $3.00{ }^{\prime \prime}$ |
| A - 32 with 5-3/8" hex | 1.00" | 4.10" | 4.00" | 7.36" | 14.00" | 10.94" | 3.00" |
| A - 32 with 5-3/4" hex | $1.00{ }^{\prime}$ | 4.32" | 4.00" | 7.80" | $14.00{ }^{\prime \prime}$ | 10.94" | 3.00" |
| A - 32 with 6-1/8" hex | 1.00 " | 4.54" | 4.00" | 8.24" | 14.00 " | 10.94" | $3.00{ }^{\prime \prime}$ |

## A - 64 MAX. TORQUE: 60,315 FT. LBS. @ 10k PSI

| Description | "A" | 'B" | "C" | "D" | "E" | "F" | "G" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 64 with 5" hex | 1.25" | 4.14" | 5.00" | 7.23" | 17.55" | 13.68" | $3.75{ }^{\prime \prime}$ |
| A - 64 with 5-3/8" hex | 1.25" | 4.35" | 5.00" | 7.65" | 17.55" | 13.68" | $3.75{ }^{\prime \prime}$ |
| A - 64 with 5-3/4" hex | 1.25 " | 4.57" | 5.00 " | 8.09" | 17.55" | 13.68" | $3.75{ }^{\prime \prime}$ |
| A - 64 with 6-1/8" hex | 1.25" | 4.79" | 5.00 " | 8.53" | 17.55" | 13.68" | 3.75" |
| A - 64 with 6-1/2" hex | 1.25 " | 5.00" | 5.00" | 8.95" | 17.55" | 13.68" | $3.75{ }^{\prime \prime}$ |
| A -64 with 6-7/8" hex | 1.25 " | 5.22" | 5.00 " | 9.39" | 17.55" | 13.68" | $3.75{ }^{\prime \prime}$ |
| A -64 with 7-1/4" hex | 1.25" | 5.44" | 5.00 " | 9.83" | 17.55" | 13.68" | $3.75{ }^{\prime \prime}$ |
| A - 64 with 7-5/8" hex | 1.25" | 5.65" | 5.00" | 10.25" | 17.55" | 13.68" | $3.75{ }^{\prime \prime}$ |

METRIC

| A -2 MAX. TORQUE: 2243 Nm @ 700 BAR |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metric Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| A - 2 with 27 mm hex | 9.5 | 25.1 | 38.1 | 39.4 | 133.7 | 104.1 | 28.6 |
| A - 2 with 32 mm hex | 9.5 | 27.8 | 38.1 | 45.0 | 133.7 | 104.1 | 28.6 |
| A - 2 with 36 mm hex | 9.5 | 30.6 | 38.1 | 50.5 | 133.7 | 104.1 | 28.6 |
| A -2 with 41 mm hex | 9.5 | 33.3 | 38.1 | 55.9 | 133.7 | 104.1 | 28.6 |
| A - 2 with 46 mm hex | 9.5 | 36.1 | 38.1 | 61.5 | 133.7 | 104.1 | 28.6 |
| A - 2 with 50 mm hex | 9.5 | 38.8 | 38.1 | 67.1 | 133.7 | 104.1 | 28.6 |
| A - 2 with 55 mm hex | 9.5 | 41.6 | 38.1 | 72.6 | 133.7 | 104.1 | 28.6 |
| A - 2 with 60 mm hex | 9.5 | 44.7 | 38.1 | 78.7 | 133.7 | 104.1 | 28.6 |

## A - 4 MAX. TORQUE: 5367 Nm @ 700 BAR

| Metric Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 4 with 46 mm hex | 12.7 | 39.4 | 50.8 | 68.1 | 178.3 | 138.9 | 38.1 |
| A - 4 with 50 mm hex | 12.7 | 42.2 | 50.8 | 73.7 | 178.3 | 138.9 | 38.1 |
| A - 4 with 55 mm hex | 12.7 | 44.7 | 50.8 | 78.7 | 178.3 | 138.9 | 38.1 |
| A - 4 with 60 mm hex | 12.7 | 47.5 | 50.8 | 84.3 | 178.3 | 138.9 | 38.1 |
| A - 4 with 65 mm hex | 12.7 | 50.3 | 50.8 | 89.9 | 178.3 | 138.9 | 38.1 |
| A - 4 with 70 mm hex | 12.7 | 53.1 | 50.8 | 95.5 | 178.3 | 138.9 | 38.1 |
| A - 4 with 75 mm hex | 12.7 | 55.9 | 50.8 | 101.1 | 178.3 | 138.9 | 38.1 |
| A - 4 with 80 mm hex | 12.7 | 58.4 | 50.8 | 106.2 | 178.3 | 138.9 | 38.1 |

## A - 8 MAX. TORQUE: 10,404 Nm @ 700 BAR

| Metric Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 8 with 55 mm hex | 15.9 | 49.3 | 63.5 | 85.3 | 223.0 | 173.7 | 47.8 |
| A - 8 with 60 mm hex | 15.9 | 52.8 | 63.5 | 92.5 | 223.0 | 173.7 | 47.8 |
| A - 8 with 65 mm hex | 15.9 | 55.9 | 63.5 | 98.0 | 223.0 | 173.7 | 47.8 |
| A - 8 with 70 mm hex | 15.9 | 59.4 | 63.5 | 105.7 | 223.0 | 173.7 | 47.8 |
| A - 8 with 75 mm hex | 15.9 | 63.0 | 63.5 | 112.8 | 223.0 | 173.7 | 47.8 |
| A - 8 with 80 mm hex | 15.9 | 66.3 | 63.5 | 119.4 | 223.0 | 173.7 | 47.8 |
| A - 8 with 90 mm hex | 15.9 | 69.9 | 63.5 | 126.5 | 223.0 | 173.7 | 47.8 |
| A - 8 with 100 mm hex | 15.9 | 73.2 | 63.5 | 133.1 | 223.0 | 173.7 | 47.8 |

A - 16 MAX. TORQUE: 17,924 Nm @ 700 BAR

| Metric Description | "A" | "B" | "C" | "D" | " $\mathrm{E} "$ | "F" | "G" |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - 16 with 70 mm hex | 19.1 | 60.5 | 76.2 | 104.9 | 267.5 | 208.3 | 57.2 |
| A -16 with 75 mm hex | 19.1 | 62.2 | 76.2 | 108.5 | 267.5 | 208.3 | 57.2 |
| A -16 with 80 mm hex | 19.1 | 64.8 | 76.2 | 113.5 | 267.5 | 208.3 | 57.2 |
| A -16 with 90 mm hex | 19.1 | 70.4 | 76.2 | 124.7 | 267.5 | 208.3 | 57.2 |
| A -16 with 100 mm hex | 19.1 | 75.4 | 76.2 | 134.9 | 267.5 | 208.3 | 57.2 |
| A -16 with 105 mm hex | 19.1 | 81.3 | 76.2 | 146.6 | 267.5 | 208.3 | 57.2 |
| A -16 with 115 mm hex | 19.1 | 86.9 | 76.2 | 157.7 | 267.5 | 208.3 | 57.2 |
| A -16 with 125 mm hex | 19.1 | 92.5 | 76.2 | 168.9 | 267.5 | 208.3 | 57.2 |

## XA - 32 MAX. TORQUE: 44,003 Nm @ 700 BAR

| Metric Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| A - 32 with 90 mm hex | 25.4 | 76.7 | 101.6 | 132.1 | 355.6 | 277.9 | 76.2 |
| A - 32 with 100 mm hex | 25.4 | 82.3 | 101.6 | 143.3 | 355.6 | 277.9 | 76.2 |
| A - 32 with 105 mm hex | 25.4 | 87.6 | 101.6 | 153.9 | 355.6 | 277.9 | 76.2 |
| A - 32 with 115 mm hex | 25.4 | 93.2 | 101.6 | 165.1 | 355.6 | 277.9 | 76.2 |
| A -32 with 125 mm hex | 25.4 | 98.8 | 101.6 | 176.3 | 355.6 | 277.9 | 76.2 |
| A - 32 with 135 mm hex | 25.4 | 104.1 | 101.6 | 186.9 | 355.6 | 277.9 | 76.2 |
| A - 32 with 145 mm hex | 25.4 | 109.7 | 101.6 | 198.1 | 355.6 | 277.9 | 76.2 |
| A -32 with 155 mm hex | 25.4 | 115.3 | 101.6 | 209.3 | 355.6 | 277.9 | 76.2 |


| A -64 MAX. TORQUE: 83,003 Nm @ 700 BAR |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metric Description | "A" | "B" | "C" | "D" | "E" | "F" | "G" |
| A - 64 w ith 125 mm hex | 31.8 | 105.2 | 127.0 | 183.6 | 445.8 | 347.5 | 95.3 |
| A - 64 w ith 135 mm hex | 31.8 | 110.5 | 127.0 | 194.3 | 445.8 | 347.5 | 95.3 |
| A - 64 w ith 145 mm hex | 31.8 | 116.1 | 127.0 | 205.5 | 445.8 | 347.5 | 95.3 |
| A - 64 w ith 155mm hex | 31.8 | 121.7 | 127.0 | 216.7 | 445.8 | 347.5 | 95.3 |
| A - 64 w ith 165 mm hex | 31.8 | 127.0 | 127.0 | 227.3 | 445.8 | 347.5 | 95.3 |
| A-64 with 175 mm hex | 31.8 | 132.6 | 127.0 | 238.5 | 445.8 | 347.5 | 95.3 |
| A - 64 w ith 185 mm hex | 31.8 | 138.2 | 127.0 | 249.7 | 445.8 | 347.5 | 95.3 |
| A - 64 w ith 195mm hex | 31.8 | 143.5 | 127.0 | 260.4 | 445.8 | 347.5 | 95.3 |

