

| MECHANICAL REQUIREMENTS | | | | | | | | | | |
|--|--------|-------|------|------|-------------------|---------------------------|-----------------------------|--------------------------|-------------------------|-------------|
| ALLOY AND STAINLESS STEEL ASTM A193 FOR HIGH TEMPERATURE SERVICE | | | | | | | | | | |
| ALLOY | UNS | W.Nr | ASTM | AISI | DIA | Tensile Strength min. Mpa | Yield Strength min,0.2% Mpa | Elongation in 4 D, MIN % | Reduction of area min % | Hardness HB |
| B5 | S50100 | 17362 | A193 | 51 | up to 4,incl | 690 | 550 | 16 | 50 | - |
| B6 | S41000 | 14006 | A193 | 410 | up to 4,incl | 760 | 585 | 15 | 50 | - |
| B7 | G41400 | 17225 | A193 | 4140 | 21/2 and under | 860 | 720 | 16 | 50 | <321 |
| | | | | | over 21/2 to 4 | 795 | 655 | 16 | 50 | <320 |
| | | | | | over 4 to 7 | 690 | 515 | 18 | 50 | <277 |
| B7M | G41400 | 17225 | A193 | 4140 | 21/2 and under | 690 | 550 | 18 | 50 | <235 |
| | | | | | over 21/2 to 4 | 690 | 550 | 18 | 50 | <235 |
| | | | | | over 4 to 7 | 690 | 515 | 18 | 50 | <235 |
| B16 | K14072 | 17711 | A193 | - | 21/2 and under | 860 | 725 | 18 | 50 | <321 |
| | | | | | over 21/2 to 4 | 760 | 655 | 17 | 45 | <302 |
| | | | | | over 4 to 7 | 690 | 585 | 16 | 45 | <277 |
| B8 | S30400 | 14301 | A193 | 304 | all size | 515 | 205 | 30 | 50 | <223 |
| B8A | S30400 | 14301 | A193 | 304 | all size | 515 | 205 | 30 | 50 | <192 |
| B8T | S32100 | 14541 | A193 | 321 | all size | 515 | 205 | 30 | 50 | <223 |
| B8TA | S32100 | 14541 | A193 | 321 | all size | 515 | 205 | 30 | 50 | <192 |
| B8C | S34700 | 14550 | A193 | 347 | all size | 515 | 205 | 30 | 50 | <223 |
| B8C.A | S34700 | 14550 | A193 | 347 | all size | 515 | 205 | 30 | 50 | <192 |
| B8M | S31600 | 14401 | A193 | 316 | all size | 515 | 205 | 30 | 50 | <223 |
| B8MA | S31600 | 14401 | A193 | 316 | all size | 515 | 205 | 30 | 50 | <192 |
| B8cl2 | S30400 | 14301 | A193 | 304 | 3/4 and under | 860 | 690 | 12 | 35 | <321 |
| B8Tcl2 | S32100 | 14541 | A193 | 321 | over 3/4 to 1 | 795 | 550 | 15 | 35 | <321 |
| B8Ccl2 | S34700 | 14550 | A193 | 347 | over 1 to 11/4 | 725 | 450 | 20 | 35 | <321 |
| | | | | | over 11/4 to 11/2 | 690 | 345 | 28 | 45 | <321 |
| B8Mcl2 | S31600 | 14401 | A193 | 316 | 3/4 and under | 760 | 665 | 15 | 45 | <321 |
| | | | | | over 3/4 to 1 | 690 | 550 | 20 | 45 | <321 |
| | | | | | over 1 to 11/4 | 655 | 450 | 25 | 45 | <321 |
| | | | | | over 11/4 to 11/2 | 620 | 345 | 30 | 45 | <321 |
| B8Mcl2B | S31600 | 14401 | | 316 | 2 and under | 655 | 616 | 25 | 40 | <321 |
| | | 14401 | | | over 2 to 21/2 | 620 | 450 | 30 | 40 | <321 |
| | | | | | over 21/2 to 3 | 550 | 380 | 30 | 40 | <321 |
| B8Mcl2C | S31600 | | | 316 | 2 and under | 585 | 450 | 30 | 60 | |
| | | | | | over 2 | 585 | 415 | 30 | 60 | |

| MECHANICAL REQUIREMENTS | | | | | | | | | | |
|---|--------|--------|------|------|-------------------|---------------------------|-----------------------------|--------------------------|-------------------------|-------------|
| ALLOY AND STAINLESS STEEL ASTM A320 FOR LOW TEMPERATURE SERVICE | | | | | | | | | | |
| ALLOY | UNS | W.Nr | ASTM | AISI | DIA | Tensile Strength min. Mpa | Yield Strength min,0.2% Mpa | Elongation in 4 D, MIN % | Reduction of area min % | Hardness HB |
| L7* | G41400 | 1.7225 | A320 | 4140 | 21/2 and under | 860 | 725 | 16 | 50 | |
| L7M** | G41400 | 1.7225 | A320 | 4140 | all size | 690 | 550 | 18 | 50 | <235 |
| L43* | G43400 | 1.6565 | A320 | 4340 | 4 and under | 860 | 725 | 16 | 50 | |
| B8 | S30400 | 1.4301 | A320 | 304 | all size | 515 | 205 | 35 | 50 | <223 |
| B8A | S30400 | 1.4301 | A320 | 304 | all size | 515 | 205 | 35 | 50 | <192 |
| B8T | S32100 | 1.4541 | A320 | 321 | all size | 515 | 205 | 35 | 50 | <223 |
| B8TA | S32100 | 1.4541 | A320 | 321 | all size | 515 | 205 | 35 | 50 | <192 |
| B8C | S34700 | 1.455 | A320 | 347 | all size | 515 | 205 | 35 | 50 | <223 |
| B8A CA | S34700 | 1.455 | A320 | 347 | all size | 515 | 205 | 35 | 50 | <192 |
| B8M | S31600 | 1.4401 | A320 | 316 | all size | 515 | 205 | 35 | 50 | <223 |
| B8MA | S31600 | 1.4401 | A320 | 316 | all size | 515 | 205 | 35 | 50 | <192 |
| B8cl2 | S30400 | 1.4301 | A320 | 304 | 3/4 and under | 860 | 690 | 12 | 35 | <321 |
| B8Tcl2 | S32100 | 1.4541 | A320 | 321 | over 3/4 to 1 | 725 | 450 | 20 | 35 | <321 |
| B8Ccl2 | S34700 | 1.455 | A320 | 347 | over 1 to 11/4 | 795 | 550 | 15 | 35 | <321 |
| | | | | | over 11/4 to 11/2 | 690 | 345 | 28 | 45 | <321 |
| B8Mcl2 | S31600 | 1.4401 | A320 | 316 | 3/4 and under | 760 | 655 | 15 | 45 | <321 |
| | | | | | over 3/4 to 1 | 690 | 550 | 20 | 45 | <321 |
| | | | | | over 1 to 11/4 | 655 | 450 | 25 | 45 | <321 |
| | | | | | over 11/4 to 11/2 | 620 | 345 | 30 | 45 | <321 |

*L7/L43 IMPACT TEST -101°C MIN AVG 27(20) JOULES

**L7M IMPACT TEST -73°C MIN AVG 27(20) JOULES