



STANDARD TOLERANCES

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JIC HYDRAULIC TUBING

| SAE NUMBER | EXPLANATION |
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| J-356 | COVERS NORMALIZED ELECTRIC RESISTANCE WELDED FLASH CONTROLLED SINGLE WALL LOW CARBON STEEL PRESSURE TUBING INTENDED FOR USE AS PRESSURE LINES IN OTHER APPLICATIONS REQUIRING TUBING OF A QUALITY SUITABLE FOR BENDING, DOUBLE FLARING, BEADING, AND BRAZING |
| J-524 | COVERS COLD DRAWN AND ANNEALED SEAMLESS LOW CARBON STEEL PRESSURE TUBING INTENDED FOR USE AS HYDRAULIC LINES AND IN OTHER APPLICATIONS REQUIRING TUBING OF A QUALITY SUITABLE FOR FLARING AND BENDING. |
| J-525 | COVERS COLD WORKED AND ANNEALED ELECTRIC RESISTANCE WELDED SINGLE WALL LOW CARBON STEEL PRESSURE TUBING INTENDED FOR USE AS HYDRAULIC LINES AND IN OTHER APPLICATIONS REQUIRING TUBING OF A QUALITY SUITABLE FOR FLARING AND BENDING. |

STAINLESS STEEL PIPE AND TUBING

| ASTM NUMBER | EXPLANATION |
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| A-213 | MINIMUM WALL THICKNESS, SEAMLESS FERRITIC AND AUSTENITIC STEEL BOILER AND SUPERHEATER TUBES AND AUSTENITIC STEEL HEAT EXCHANGER TUBES. THE TUBING SIZES AND THICKNESS ARE USUALLY FURNISHED AS 1/8 IN. INSIDE DIAMETER TO 5 IN. OUTSIDE DIAMETER AND .015 TO .500 IN. INCLUSIVE, MINIMUM WALL THICKNESS. OTHER SIZES MAY BE FURNISHED PROVIDED THAT SUCH TUBES COMPLY WITH ALL THE OTHER REQUIREMENTS OF THIS SPECIFICATION. |
| A-249 | COVERS NOMINAL WALL THICKNESS WELDED TUBES MADE FROM AUSTENITIC STAINLESS STEEL INTENDED FOR USE SUCH AS BOILER, SUPERHEATER, HEAT EXCHANGER, OR CONDENSER TUBES. THE TUBING SIZES AND THICKNESSES USUALLY FURNISHED ARE 1/8 IN. INSIDE DIAMETER, 5 IN. OUTSIDE DIAMETER AND .015 TO .320 IN. INCLUSIVE IN WALL THICKNESS. TUBING HAVING OTHER DIMENSIONS MAY BE FURNISHED PROVIDED SUCH TUBES COMPLY WITH ALL OF THE REQUIREMENTS OF THIS SPECIFICATION. |
| A-269 | COVERS SEVERAL GRADES OF NOMINAL WALL THICKNESS, STAINLESS STEEL TUBING FOR GENERAL CORROSION RESISTING AND LOW OR HIGH TEMPERATURE SERVICE. THE TUBING SIZES AND THICKNESS USUALLY FURNISHED TO THIS SPECIFICATION ARE 1/4 IN. INSIDE DIAMETER AND LARGER AND .020 IN. NOMINAL WALL THICKNESS AND HEAVIER. |
| A-270 | SPECIFICATION COVERS SEAMLESS AND WELDED AUSTENITIC STAINLESS STEEL SANITARY TUBING INTENDED FOR USE IN THE DAIRY AND FOOD INDUSTRY AND HAVING SPECIAL SURFACE CONDITIONS. GRADES COVERED IN THIS SPECIFICATION ARE TP 304, 304L, 316, AND 31 6L. INCLUDES SIZES UP TO AND INCLUDING 4 INCHES IN OUTSIDE DIAMETER. |
| A-312 | SEAMLESS AND WELDED STAINLESS STEEL PIPE INTENDED FOR HIGH TEMPERATURE AND GENERAL CORROSIVE SERVICE. SEVERAL GRADES ARE COVERED, THE MOST COMMON OF WHICH ARE TP304, 316, 304L, 31 6L, AND 321. |
| A-511 | SEAMLESS STAINLESS TUBING FOR USE IN MECHANICAL APPLICATIONS WHERE CORROSION RESISTANCE OR HIGH TEMPERATURE STRENGTH IS NEEDED. MATERIAL CAN BE EITHER COLD FINISHED OR HOT FINISHED IN SIZES UP TO 12-3/4 IN. O.O. WITH WALL THICKNESS AS REQUIRED. |
| A-554 | COVERS WELDED STAINLESS STEEL TUBING FOR MECHANICAL AND STRUCTURAL APPLICATIONS WHERE APPEARANCE, MECHANICAL PROPERTIES, OR CORROSION RESISTANCE IS NEEDED. |
| A-778 | SPECIFICATION COVERS WELDED UNANNEALED AUSTENITIC STAINLESS STEEL TUBULAR PRODUCTS INTENDED FOR LOW AND MODERATE TEMPERATURES AND CORROSIVE SERVICE WHERE HEAT TREATMENT IS NOT NECESSARY FOR CORROSIVE RESISTANCE. GRADES COVERED IN THIS SPECIFICATION INCLUDE TP 304L, 31 6L, 31 7L, 321, AND 347. |