

PRODEC® 303

Mechanical Properties

Typical Representative Tensile Properties

| Tensile Strength, ksi | Yield Strength, ksi | % Elongation in 2 inches | % Reduction of area | Hardness, HB |
|-----------------------|---------------------|--------------------------|---------------------|--------------|
| 90 | 43 | 55 | 60 | 180 |

Machining Guidelines

| | Depth/Width, dia/in | High Speed Tooling | | Carbide Tooling | |
|-------------|---------------------|--------------------|-----------------|-----------------|---------------|
| | | Speed, sfm | Feed, in/rev | Speed, sfm | Feed, in/rev |
| Turning | 0.005 - 0.200 | 115 -130 | 0.015 - 0.020 | 375 -700 | 0.025 - 0.030 |
| | 0.002- 0.004 | 135 -180 | 0.005 - 0.010 | 600 -900 | 0.007- 0.010 |
| Cut-off | 1/16 | 90 -120 | 0.0015 - 0.0020 | 275 - 400 | 0.002 - 0.004 |
| | 1/4 | 100 -130 | 0.0025 - 0.0030 | 325 - 450 | 0.004 - 0.008 |
| Forming | 12 | 100 -130 | 0.0020 | 375 - 425 | 0.003 - 0.006 |
| | | 90 -120 | 0.0015 | 350 - 400 | 0.002- 0.004 |
| Drilling | 1/4 | 70 - 80 | 0.007 | -7 | -0 |
| | 1/2 | 85 -95 | 0.012 | 00 | .005 |
| | 1-2 | 100 -110 | 0.020 | 800 | 0.007 |
| Reaming | 1/4 | 90 -110 | 0.006 | - | - |
| | 1-2 | 90 -110 | 0.025 | - | - |
| End Milling | 0.050 -1/2 | 130 -160 | 0.003 | 300 - 450 | 0.004 |
| | 0.050 -1/2 | 130 -160 | 0.006 | 360 - 500 | 0.008 |
| Tapping | 7 Threads/in | 10 -115 | - | - | - |
| Threading | 25 Threads/in | 40 -50 | - | - | - |

PRODEC® 304/304L

Mechanical Properties

Typical Representative Tensile Properties

| Tensile Strength, ksi | Yield Strength, ksi | % Elongation in 2 inches | % Reduction of area | Hardness, HB |
|-----------------------|---------------------|--------------------------|---------------------|--------------|
| 85 | 35 | 60 | 70 | 160 |

Minimum Tensile Properties ASTM A 276

| Tensile Strength, ksi | Yield Strength, ksi | % Elongation in 2 inches | % Reduction of area | Hardness, HB |
|-----------------------|---------------------|--------------------------|---------------------|--------------|
| 75 | 30 | 40 | - | 201 |

PRODEC® 316/316L

Mechanical Properties

Typical Representative Tensile Properties

| Tensile Strength, ksi | Yield Strength, ksi | % Elongation in 2 inches | % Reduction of area | Hardness, HB |
|-----------------------|---------------------|--------------------------|---------------------|--------------|
| 85 | 44 | 56 | 69 | 170 |

Minimum Tensile Properties ASTM A 276

| Tensile Strength, ksi | Yield Strength, ksi | % Elongation in 2 inches | % Reduction of area | Hardness, HB |
|-----------------------|---------------------|--------------------------|---------------------|--------------|
| 75 | 30 | 40 | - | 217 |

PRODEC® 316/316L

Mechanical Properties

Typical Representative Tensile Properties

| Condition | Tensile Strength, ksi | 0.2% Yield Strength, ksi | % Elongation in 2 inches | % Reduction of area | Hardness, Rc | Charpy V-Notch Impact Strength, ft lb. |
|-----------|-----------------------|--------------------------|--------------------------|---------------------|--------------|--|
| H900 | 198 | 183 | 15 | 52 | 44 | 16 |
| H1025 | 168 | 162 | 16 | 58 | 38 | 40 |
| H1075 | 164 | 148 | 17 | 59 | 36 | 46 |
| H1150 | 144 | 126 | 20 | 60 | 33 | 55 |
| H1150M | 123 | 87 | 22 | 66 | 29 | 110 |
| H1150D | 150 | 110 | 20 | 60 | 29 | 50 |