
Point Q

Stresses:

Ma = 125.371
Mm = 0.000
Ta = 0.000
Tm = 0.000

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.760
kc = 1.000
Se = 17.019

Stress Concentrations

Kt = 2.700
Kts = 2.200
r = 0.063
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 2.146
Kfs = 1.881

#--- Solving for n using Goodman criterion ---#

Se = 17.019
Kf = 2.146
Goodman: n = 193.980

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.760
kc = 1.000
Se = 17.019

Stress Concentrations

Kt = 2.700
Kts = 2.200
r = 0.063
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 2.146
Kfs = 1.881

#--- Solving for n using yielding criterion ---#

Se = 17.019
Kf = 2.146
yielding: n = 501.515

Point R

Stresses:

Ma = 292.532
Mm = 0.000
Ta = 0.000
Tm = 0.000

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.757
kc = 1.000
Se = 16.958

Stress Concentrations

Kt = 1.700
Kts = 1.500
r = 0.322
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 1.577
Kfs = 1.431

#--- Solving for n using Goodman criterion ---#

Se = 16.958
Kf = 1.577
Goodman: n = 120.781

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.757
kc = 1.000
Se = 16.958

Stress Concentrations

Kt = 1.700
Kts = 1.500
r = 0.322
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 1.577
Kfs = 1.431

#--- Solving for n using yielding criterion ---#

Se = 16.958
Kf = 1.577
yielding: n = 313.394

Point S

Stresses:

Ma = 376.112
Mm = 0.000
Ta = 0.000
Tm = 0.000

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.816
kc = 1.000
Se = 18.282

Stress Concentrations

Kt = 1.700
Kts = 1.500
r = 0.199
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091

Kf = 1.551
Kfs = 1.415

#--- Solving for n using Goodman criterion ---#
Se = 18.282
Kf = 1.551
Goodman: n = 24.421

Endurance Limit
S'e = 26.500
ka = 0.845
kb = 0.816
kc = 1.000
Se = 18.282

Stress Concentrations
Kt = 1.700
Kts = 1.500
r = 0.199
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 1.551
Kfs = 1.415

#--- Solving for n using yielding criterion ---#
Se = 18.282
Kf = 1.551
yielding: n = 58.777

Point T

Stresses:
Ma = 283.023
Mm = 0.000
Ta = 0.000
Tm = 1487.780

Endurance Limit
S'e = 26.500
ka = 0.845
kb = 0.816
kc = 1.000
Se = 18.282

Stress Concentrations
Kt = 2.140
Kts = 3.000
r = 0.040
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 1.709
Kfs = 2.374

#--- Solving for n using Goodman criterion ---#
Se = 18.282
Kf = 1.709
Goodman: n = 9.254

Endurance Limit
S'e = 26.500
ka = 0.845
kb = 0.816

kc = 1.000
Se = 18.282

Stress Concentrations

Kt = 2.140
Kts = 3.000
r = 0.040
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 1.709
Kfs = 2.374

#--- Solving for n using yielding criterion ---#

Se = 18.282
Kf = 1.709
yielding: n = 9.675

Point U

Stresses:

Ma = 254.721
Mm = 0.000
Ta = 0.000
Tm = 1487.780

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.816
kc = 1.000
Se = 18.282

Stress Concentrations

Kt = 5.000
Kts = 3.000
r = 0.010
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 2.808
Kfs = 2.048

#--- Solving for n using Goodman criterion ---#

Se = 18.282
Kf = 2.808
Goodman: n = 8.763

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.816
kc = 1.000
Se = 18.282

Stress Concentrations

Kt = 5.000
Kts = 3.000
r = 0.010
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 2.808
Kfs = 2.048

```
#--- Solving for n using yielding criterion ---#  
Se = 18.282  
Kf = 2.808  
yielding: n = 10.221
```

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Point V  
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```
Stresses:  
Ma = 198.116  
Mm = 0.000  
Ta = 0.000  
Tm = 1487.780
```

```
Endurance Limit  
S'e = 26.500  
ka = 0.845  
kb = 0.825  
kc = 1.000  
Se = 18.469
```

```
Stress Concentrations  
No stress concentration, Kf = Kfs = 1.000
```

```
#--- Solving for n using Goodman criterion ---#  
Se = 18.469  
Kf = 1.000  
Goodman: n = 16.705
```

```
Endurance Limit  
S'e = 26.500  
ka = 0.845  
kb = 0.825  
kc = 1.000  
Se = 18.469
```

```
Stress Concentrations  
No stress concentration, Kf = Kfs = 1.000
```

```
#--- Solving for n using yielding criterion ---#  
Se = 18.469  
Kf = 1.000  
yielding: n = 17.324
```

```
-----  
Point W  
-----
```

```
Stresses:  
Ma = 84.907  
Mm = 0.000  
Ta = 0.000  
Tm = 1487.780
```

```
Endurance Limit  
S'e = 26.500  
ka = 0.845  
kb = 0.825  
kc = 1.000  
Se = 18.469
```

```
Stress Concentrations  
Kt = 2.700
```

```

Kts = 2.200
r = 0.036
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 2.039
Kfs = 1.812

#--- Solving for n using Goodman criterion ---#
Se = 18.469
Kf = 2.039
Goodman: n = 10.955

Endurance Limit
S'e = 26.500
ka = 0.845
kb = 0.825
kc = 1.000
Se = 18.469

Stress Concentrations
Kt = 2.700
Kts = 2.200
r = 0.036
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 2.039
Kfs = 1.812

#--- Solving for n using yielding criterion ---#
Se = 18.469
Kf = 2.039
yielding: n = 10.268

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Point X
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Stresses:
Ma = 0.000
Mm = 0.000
Ta = 0.000
Tm = 1487.780

Endurance Limit
S'e = 26.500
ka = 0.845
kb = 0.825
kc = 0.590
Se = 10.897

Stress Concentrations
Kt = 5.000
Kts = 3.000
r = 0.010
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 2.808
Kfs = 2.048

#--- Solving for n using Goodman criterion ---#
Se = 10.897
Kf = 2.808
Goodman: n = 11.759

```

Endurance Limit

$S'_e = 26.500$

$k_a = 0.845$

$k_b = 0.825$

$k_c = 0.590$

$S_e = 10.897$

Stress Concentrations

$K_t = 5.000$

$K_{ts} = 3.000$

$r = 0.010$

$\sqrt{a} \text{ [bending]} = 0.121$

$\sqrt{a} \text{ [torsion]} = 0.091$

$K_f = 2.808$

$K_{fs} = 2.048$

#--- Solving for n using yielding criterion ---#

$S_e = 10.897$

$K_f = 2.808$

yielding: $n = 9.762$

Point Y

Stresses:

$M_a = 0.000$

$M_m = 0.000$

$T_a = 0.000$

$T_m = 1487.780$

Endurance Limit

$S'_e = 26.500$

$k_a = 0.845$

$k_b = 0.825$

$k_c = 0.590$

$S_e = 10.897$

Stress Concentrations

No stress concentration, $K_f = K_{fs} = 1.000$

#--- Solving for n using Goodman criterion ---#

$S_e = 10.897$

$K_f = 1.000$

Goodman: $n = 24.077$

Endurance Limit

$S'_e = 26.500$

$k_a = 0.845$

$k_b = 0.825$

$k_c = 0.590$

$S_e = 10.897$

Stress Concentrations

No stress concentration, $K_f = K_{fs} = 1.000$

#--- Solving for n using yielding criterion ---#

$S_e = 10.897$

$K_f = 1.000$

yielding: $n = 19.988$

Point Z

Stresses:

Ma = 0.000
Mm = 0.000
Ta = 0.000
Tm = 1487.780

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.825
kc = 0.590
Se = 10.897

Stress Concentrations

Kt = 2.140
Kts = 3.000
r = 0.036
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 1.697
Kfs = 2.354

#--- Solving for n using Goodman criterion ---#

Se = 10.897
Kf = 1.697
Goodman: n = 10.229

Endurance Limit

S'e = 26.500
ka = 0.845
kb = 0.825
kc = 0.590
Se = 10.897

Stress Concentrations

Kt = 2.140
Kts = 3.000
r = 0.036
sqrt(a) [bending] = 0.121
sqrt(a) [torsion] = 0.091
Kf = 1.697
Kfs = 2.354

#--- Solving for n using yielding criterion ---#

Se = 10.897
Kf = 1.697
yielding: n = 8.492