

MASS PROPERTIES OF THE PART BOTTOM\_A

VOLUME = 1.1445763e+00 INCH^3  
SURFACE AREA = 3.3921986e+01 INCH^2  
DENSITY = 9.7500000e-02 POUND / INCH^3  
MASS = 1.1159619e-01 POUND

CENTER OF GRAVITY with respect to \_BOTTOM\_A coordinate frame:  
X Y Z 1.9273073e-01 2.7215338e-01 0.0000000e+00 INCH

INERTIA with respect to \_BOTTOM\_A coordinate frame: (POUND \* INCH^2)

INERTIA TENSOR:

Ixx Ixy Ixz 1.0029388e-01 -8.9983905e-03 0.0000000e+00  
Iyx Iyy Iyz -8.9983905e-03 2.4602057e-01 0.0000000e+00  
Izx Izy Izz 0.0000000e+00 0.0000000e+00 1.7981821e-01

INERTIA at CENTER OF GRAVITY with respect to \_BOTTOM\_A coordinate frame:

(POUND \*

INCH^2)

INERTIA TENSOR:

Ixx Ixy Ixz 9.2028236e-02 -3.1449117e-03 0.0000000e+00  
Iyx Iyy Iyz -3.1449117e-03 2.4187531e-01 0.0000000e+00  
Izx Izy Izz 0.0000000e+00 0.0000000e+00 1.6740730e-01

PRINCIPAL MOMENTS OF INERTIA: (POUND \* INCH^2)

I1 I2 I3 9.1962261e-02 1.6740730e-01 2.4194128e-01

ROTATION MATRIX from \_BOTTOM\_A orientation to PRINCIPAL AXES:

0.99978 0.00000 0.02097  
0.02097 0.00000 -0.99978  
0.00000 1.00000 0.00000

ROTATION ANGLES from \_BOTTOM\_A orientation to PRINCIPAL AXES (degrees):

angles about x y z 90.000 1.202 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 9.0777903e-01 1.2247925e+00 1.4724153e+00 INCH

MASS PROPERTIES OF THE PART TOP\_A

VOLUME = 6.0778832e-01 INCH^3  
SURFACE AREA = 2.0628889e+01 INCH^2  
DENSITY = 9.7500000e-02 POUND / INCH^3  
MASS = 5.9259361e-02 POUND

CENTER OF GRAVITY with respect to \_TOP\_A coordinate frame:  
X Y Z 1.5731661e+00 -1.1250000e+00 -8.3737137e-01 INCH

INERTIA with respect to \_TOP\_A coordinate frame: (POUND \* INCH^2)

INERTIA TENSOR:

Ixx Ixy Ixz 1.4457143e-01 1.0487792e-01 8.4357441e-02  
Iyx Iyy Iyz 1.0487792e-01 2.7213928e-01 -5.5824854e-02  
Izx Izy Izz 8.4357441e-02 -5.5824854e-02 3.2888736e-01

INERTIA at CENTER OF GRAVITY with respect to \_TOP\_A coordinate frame:

(POUND \*

INCH^2)

INERTIA TENSOR:

Ixx Ixy Ixz 2.8019178e-02 0.0000000e+00 6.2936445e-03  
Iyx Iyy Iyz 0.0000000e+00 8.3929025e-02 0.0000000e+00  
Izx Izy Izz 6.2936445e-03 0.0000000e+00 1.0722910e-01

PRINCIPAL MOMENTS OF INERTIA: (POUND \* INCH^2)

I1 I2 I3 2.7522233e-02 8.3929025e-02 1.0772605e-01

ROTATION MATRIX from \_TOP\_A orientation to PRINCIPAL AXES:

0.99690 0.00000 0.07871  
0.00000 1.00000 0.00000  
-0.07871 0.00000 0.99690

ROTATION ANGLES from \_TOP\_A orientation to PRINCIPAL AXES (degrees):

angles about x y z 0.000 4.515 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 6.8149606e-01 1.1900840e+00 1.3482855e+00 INCH