

```
Lo = 38.1
Bo = 4
Lp = 19.05
Rp = 3.18
Rd = 6.83
to = 0.9
pi = 4*atan(1)
```

```
/DSCALE,1,1.0
/PREP7
```

```
et,1,49
r,1,1e5,,,,0.001
et,2,43
r,2,to
et,3,45
mp,ex,2,69e3
mp,prxy,2,0.3
tb,biso,2
tbdata,,240,7800
mp,ex,3,100e9
mp,prxy,3,0.3
```

```
k,1,0,0,0
k,2,Lo,0,0
k,13,Lo,0,Bo
k,14,0,0,Bo
l,1,2,40
l,2,13,2
l,13,14,40
l,14,1,2
a,1,14,13,2
type,2
mat,2
real,2
amesh,1
```

```
local,11,1,Lo,-Rd
k,3
k,4,Rd,90
k,5,Rd,135
k,6,Rd,180
l,3,4,5
l,4,5,5
l,5,6,5
l,6,3,5
```

```
local,12,1,Lp-Rp,Rp+to
k,7
k,8,Rp,0
k,9,Rp,-45
k,10,Rp,-90
l,10,7,5
l,7,8,5
l,8,9,5
l,9,10,5
csys,0
k,11,0,to
k,12,0,Rp+to
l,10,11,20
l,11,12,5
l,12,7,20
```

```
a,3,4,5,6
a,7,8,9,10
a,10,11,12,7
esize,,2
vext,2,4,1,,,Bo
type,3
mat,3
vmesh,all
```

```
continue
```

```
asel,s,area,,12,13
asel,a,area,,16
nsla,s,1
cm,source1,node
allsel,all
```

```
nset,s,loc,x,0,(Lp-Rp)+(pi*Rp/2)
nset,r,loc,y,0
cm,target1,node
allsel,all
```

```
asel,s,area,,7,8
nsla,s,1
cm,source2,node
allsel,all
```

```
nset,s,loc,x,Lo-(pi*Rd/2),Lo
nset,r,loc,y,0
cm,target2,node
allsel,all
```

```
type,1
real,1
gcgen,source1,target1,,,top
gcgen,source2,target2,,,bot
allsel,all
```

```
d,all,uz,0
nset,s,loc,x,Lo
d,all,all,0
nset,s,loc,y,-Rd
d,all,all,0
allsel,all
```

```
nset,s,loc,x,0
d,all,ux,0
d,all,rotz,0
allsel,all
```

```
asel,s,area,,12,13
asel,a,area,,16
nsla,s,1
d,all,uy,-to
allsel,all
fini
```

```
/SOLU
NLGEOM,1
NSUBST,200
AUTOTS,1
outres,all,all
SOLVE
asel,s,area,,12,13
asel,a,area,,16
nsla,s,1
ddelete,all,uy
asel,s,area,,11
asel,a,area,,18
nsla,s,1
sf,all,pres,5000/(Bo*Lp)
allsel,all
solve
fini
```

```
/post26
nsol,2,1,u,y
prod,2,2,,,,,-1
xvar,2
prvar,2
```