

Problem info

Problem type: AC Conduction , frequency: 50 Hz,

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *SBARRA A SEZIONE QUADRATA CON SPIGOLI ARROTONDATI.pbm*
- Geometry: *Sbarra a sezione quadrata con spigoli arrotondati.mod*
- Material Data: *Sbarra a sezione quadrata con spigoli arrotondati.dec*
- Material Data 2 (library): *Sbarra a sezione quadrata con spigoli arrotondati.dec*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model



Table 1. Geometry model statistics

	With Label	Total
Blocks	4	9
Edges	3	48
Vertices	0	40

Number of nodes: 14954.

Labelled objects

There are following labelled objects in the geometry model (Material Data file could contain more labels, but only those labels that assigned to geometric objects are listed)

Blocks:

- [olio](#)
- [cartogeno](#)
- [carta](#)
- [avvolgimento](#)
-

Edges:

- [Dischi avvolg](#)
- [anello equip](#)
- [massa](#)
-

Vertices:

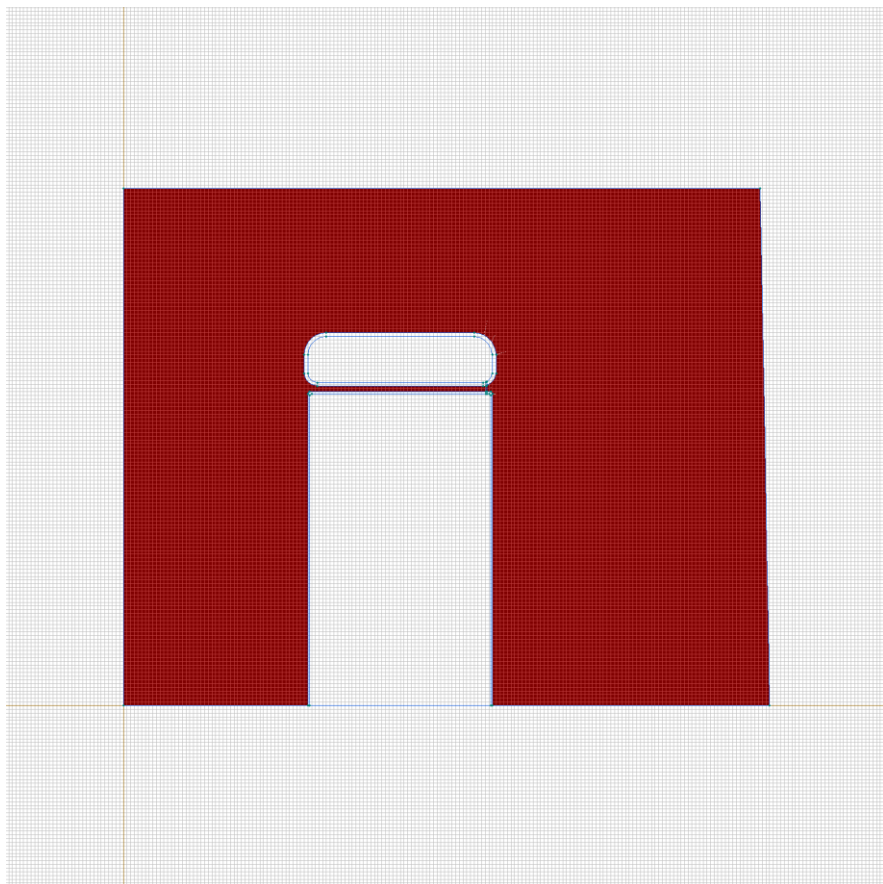
Detailed information about each label is listed below.

Labelled objects: block "olio"

There are (2) objects with this label

Relative electric permittivity $\epsilon_x=2.2$, $\epsilon_y=2.2$

Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]

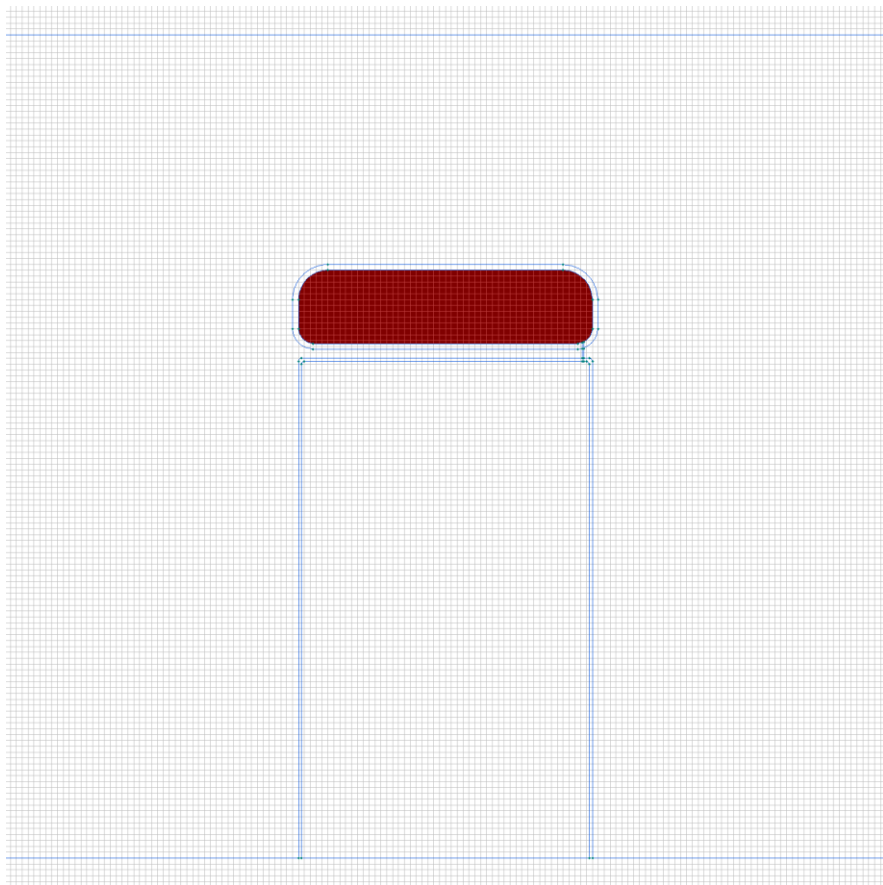


Labelled objects: block "cartogeno"

There are (1) objects with this label

Relative electric permittivity $\epsilon_{x=0}$, $\epsilon_{y=0}$

Electrical conductivity $\sigma_{x=0}$ [S/m], $\sigma_{y=0}$ [S/m]

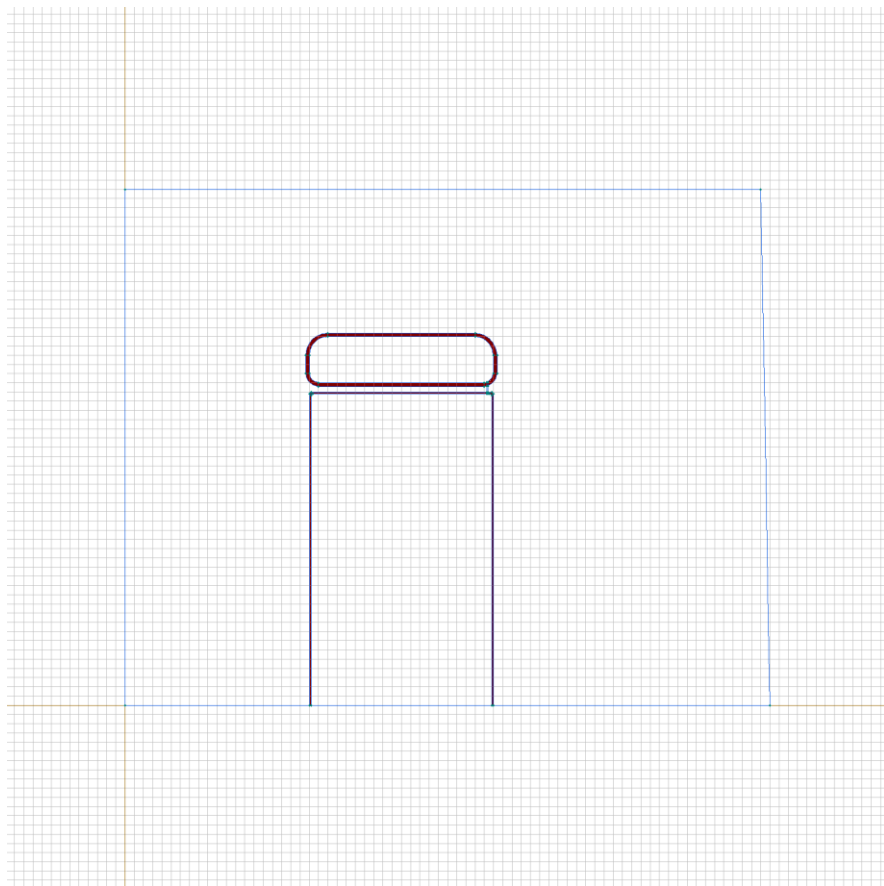


Labelled objects: block "carta"

There are (5) objects with this label

Relative electric permittivity $\epsilon_x=3.5$, $\epsilon_y=3.5$

Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]

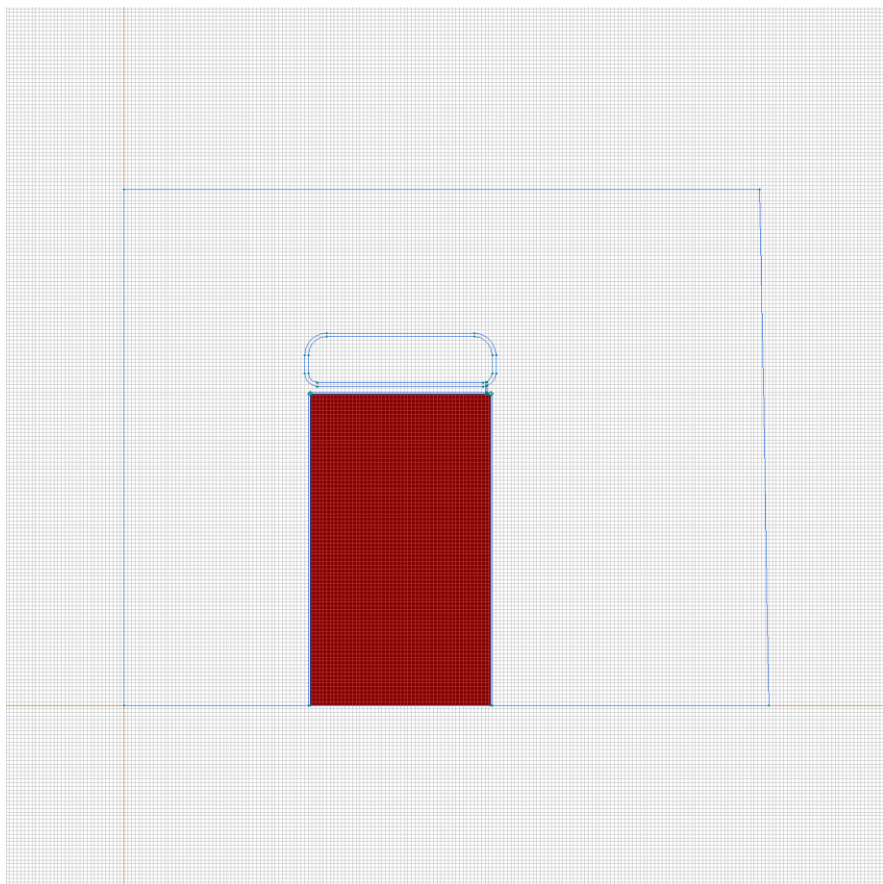


Labelled objects: block "avvolgimento"

There are (1) objects with this label

Relative electric permittivity $\epsilon_{sx}=0$, $\epsilon_{sy}=0$

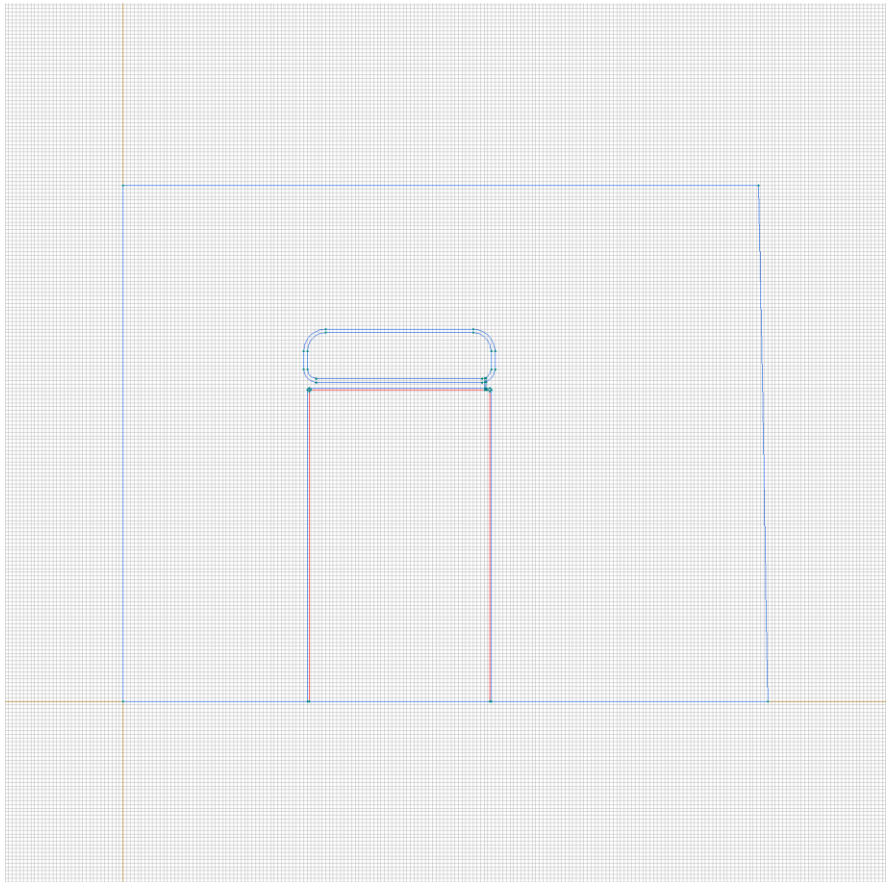
Electrical conductivity $\sigma_x=0$ [S/m], $\sigma_y=0$ [S/m]



Labelled objects: edge "Dischi avvolg"

There are (7) objects with this label

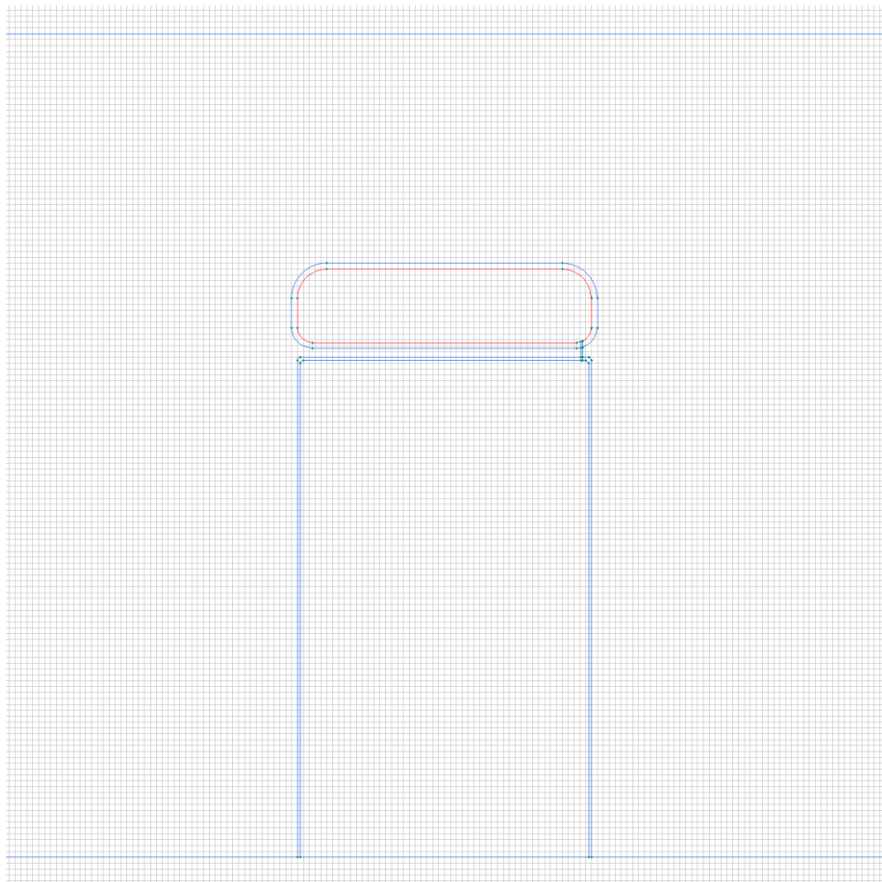
Voltage: $U=190000$ [V], phase 0 [deg]



Labelled objects: edge "anello equip"

There are (10) objects with this label

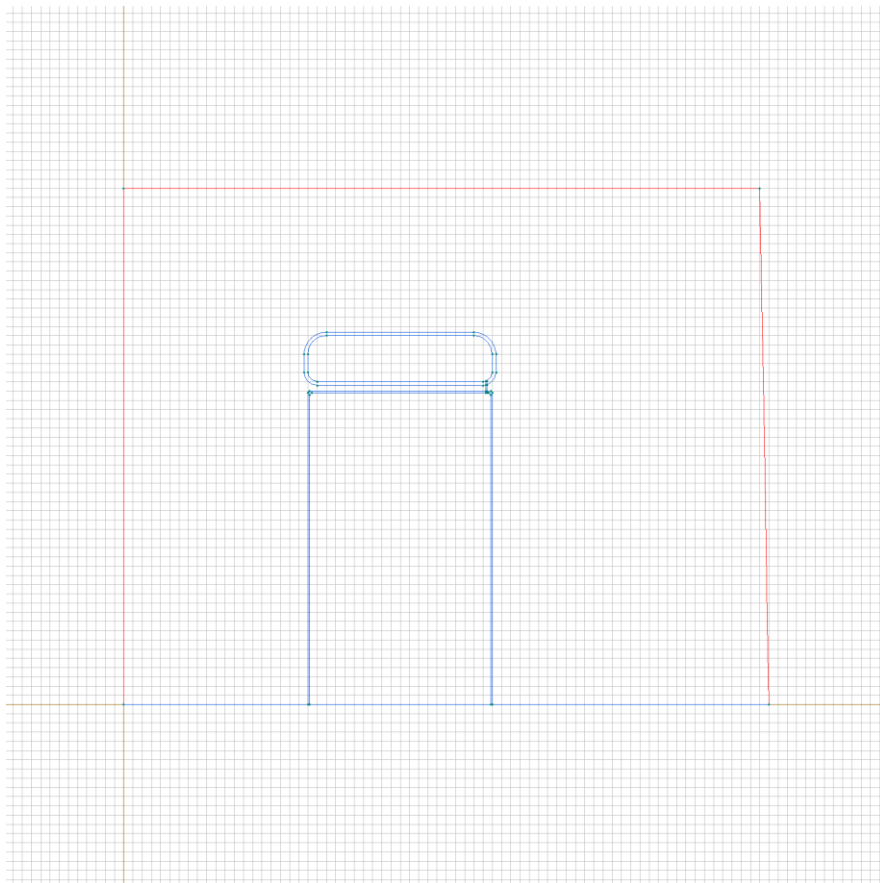
Voltage: $U=200000$ [V], phase 0 [deg]



Labelled objects: edge "massa"

There are (3) objects with this label

Voltage: $U=0$ [V], phase 0 [deg]



[Problem info](#)

[Geometry model](#)

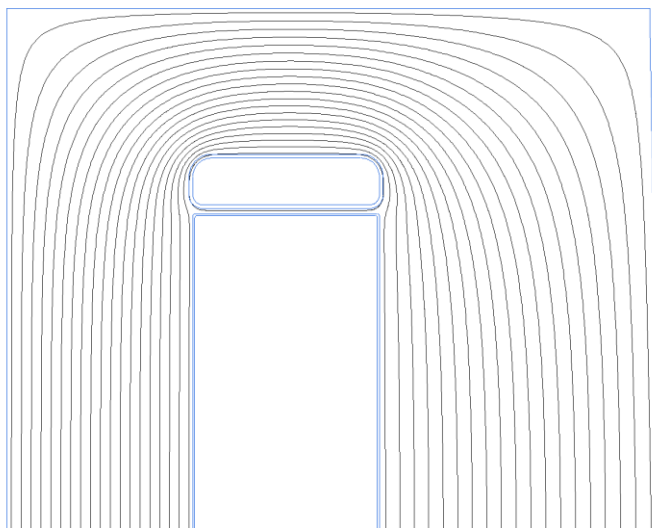
[Labelled Objects](#)

[Results](#)

[Nonlinear dependencies](#)

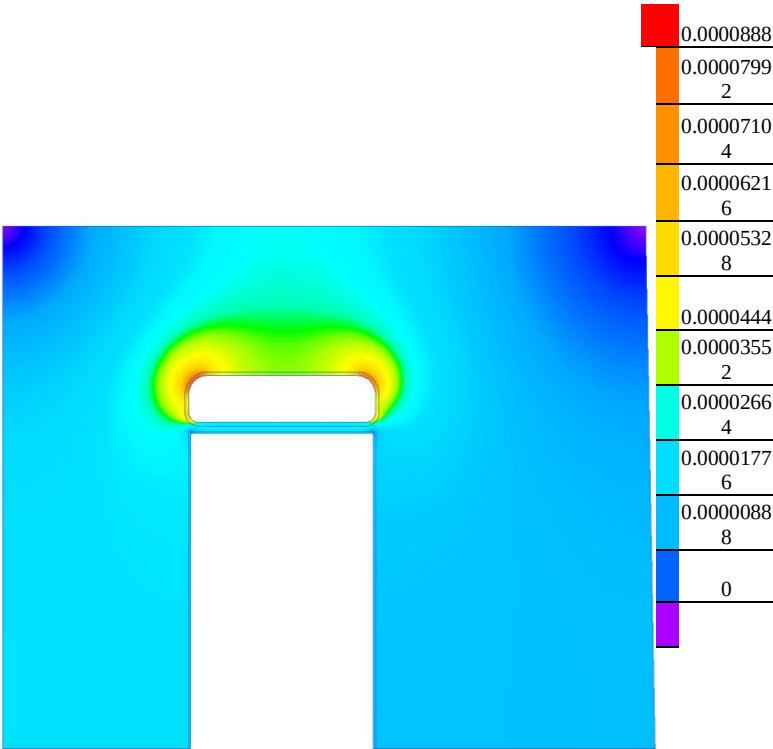
Results

Field lines



Results

Color map of Electric induction $|D|$ [C/m2]



Nonlinear dependencies

No non-linear dependencies are used in this problem data