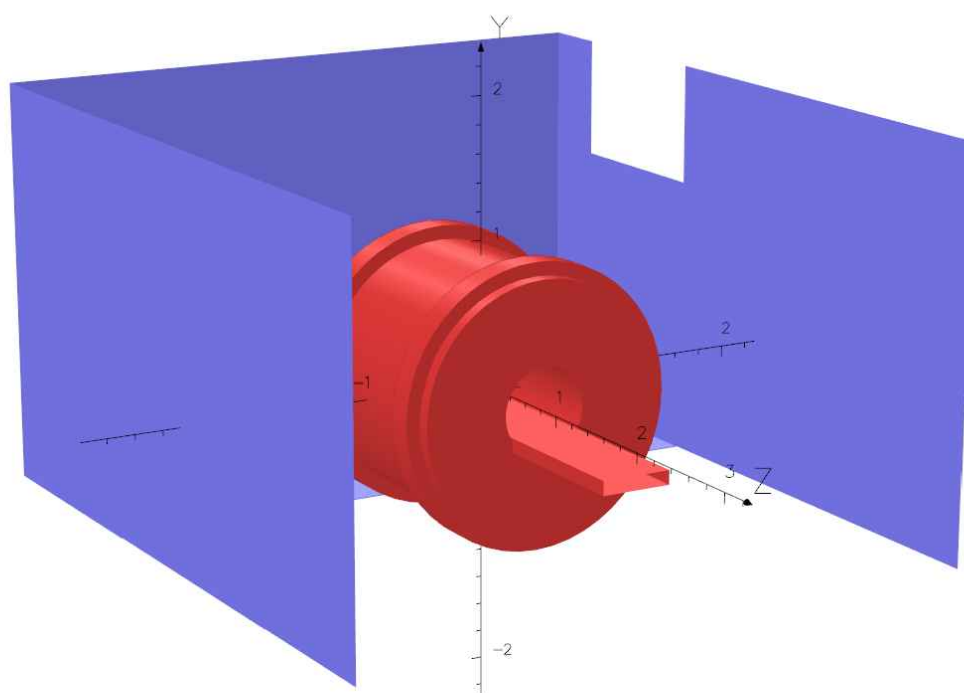


List of Documents

No.	Document No.	Document
01	60198-995886-01	Magnetic Shielding
02	60198-995886-02	Overview
03	60198-995886-03	Fringefields
04	60198-995886-04	Fringefields
05	60198-995886-05	Shield dimensions
06	60198-995886-06	Shield dimensions
07	60198-995886-07	Examples for connections



UNITS		
Length	m	
Magn Flux Density	T	
Magnetic Field	A/m	
Magn Scalar Pot	A	
Current Density	A/m ²	
Power	W	
Force	N	
MODEL DATA		
or 103_Skyra_HAMPTON_VAMC_01.op3		
Magnetostatic (TOSCA)		
Nonlinear materials		
Simulation No 1 of 1		
667280 elements		
1314774 nodes		
16 conductors		
Nodally interpolated fields		
Activated in global coordinates		
Field Point Local Coordinates		
Local = Global		
FIELD EVALUATIONS		
Cartesian	CARTESIAN	100x150
(nodal)		
x=0.0	y=6.15 to -6.15	z=9.0 to -9.0
Fit:	FIT (integral)	32x32
r=0.25	θ=0.00429792	φ=0.0 to 6.283185

Opera
Simulation Software
COBHAM

Magnetic Shielding

Korb T. 23.03.2018		
Edited	Checked	Released



Siemens Healthcare GmbH
Planning department
Hartmannstrasse 16
D-91052 Erlangen

Hampton VAMC
100 Emancipation Dr.
Hampton, VA 23667

Drawing #1702733 / Project #141671
MAGNETIC RESONANCE
MAGNETOM Skyra

A4

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Element	Weight [lbs]	Material	Page
Shielding Rearwall	1378	M36	5
Shielding Floorplate	827	M36	5
Shielding Sidewall (LEFT)	522	M36	6
Shielding Sidewall (RIGHT)	483	M36	6
Total weight	3210		

Magnet put on
Stop
Choc's☐ Sylomer☐ X

B-field error
% rms
0.656774

Forces on coils [N]		
in X	in Y	in Z
0	-949	-863

OP3 filename: or103_Skyra_HAMPTON_VAMC_01.op3

Overview



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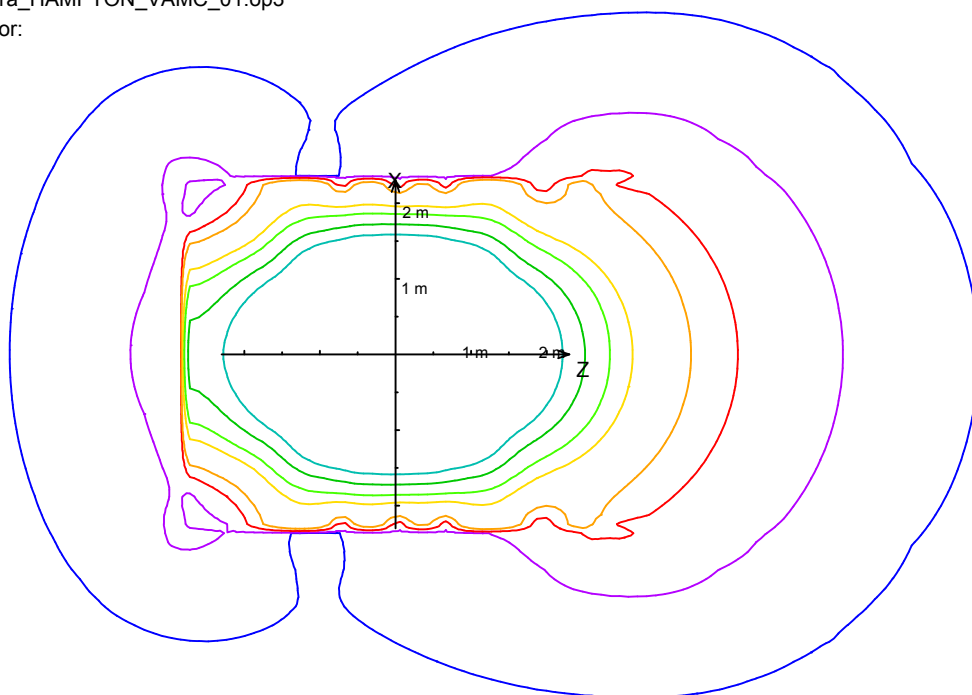
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or103_Skyra_HAMPTON_VAMC_01.op3

Fieldlines for:

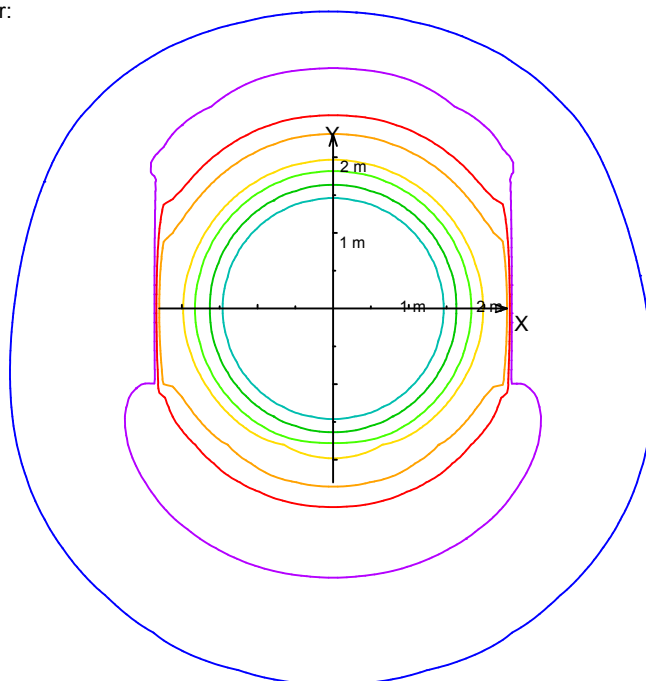
0.05 mT
0.15 mT
0.5 mT
1 mT
3 mT
5 mT
10 mT
20 mT



or103_Skyra_HAMPTON_VAMC_01.op3

Fieldlines for:

0.05 mT
0.15 mT
0.5 mT
1 mT
3 mT
5 mT
10 mT
20 mT



Fringefields



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or103_Skyra_HAMPTON_VAMC_01.op3

Fieldlines for:

0.05 mT

0.15 mT

0.5 mT

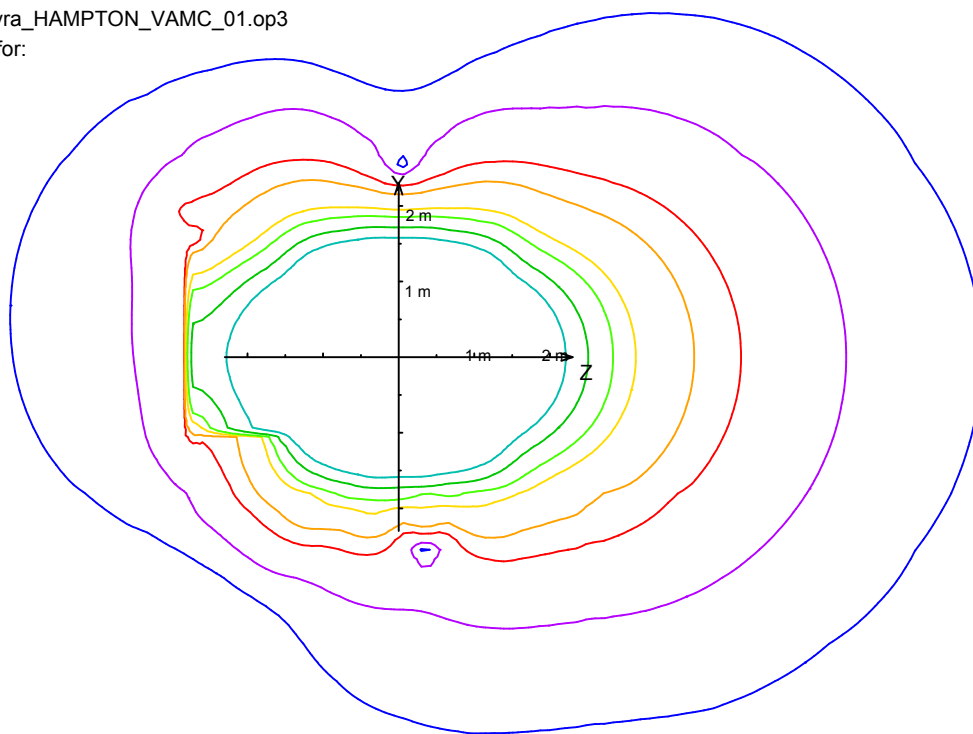
1 mT

3 mT

5 mT

10 mT

20 mT



Fringefields



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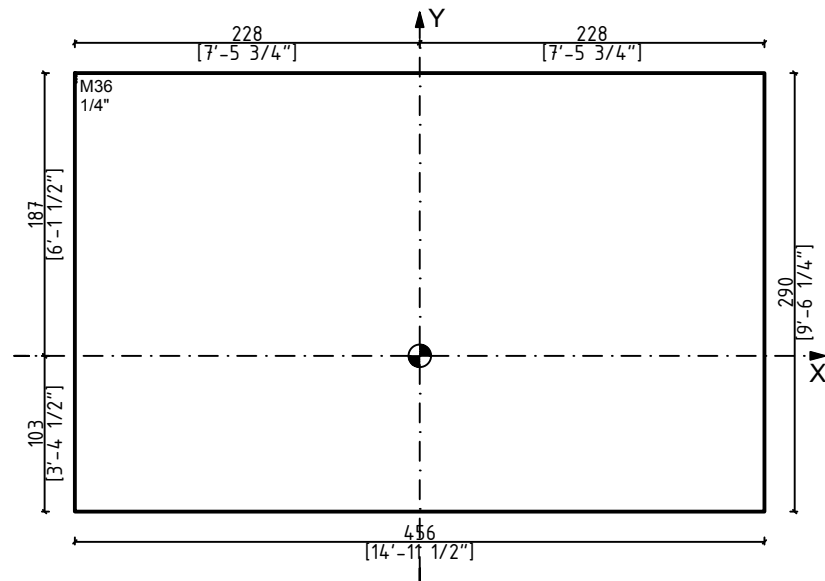
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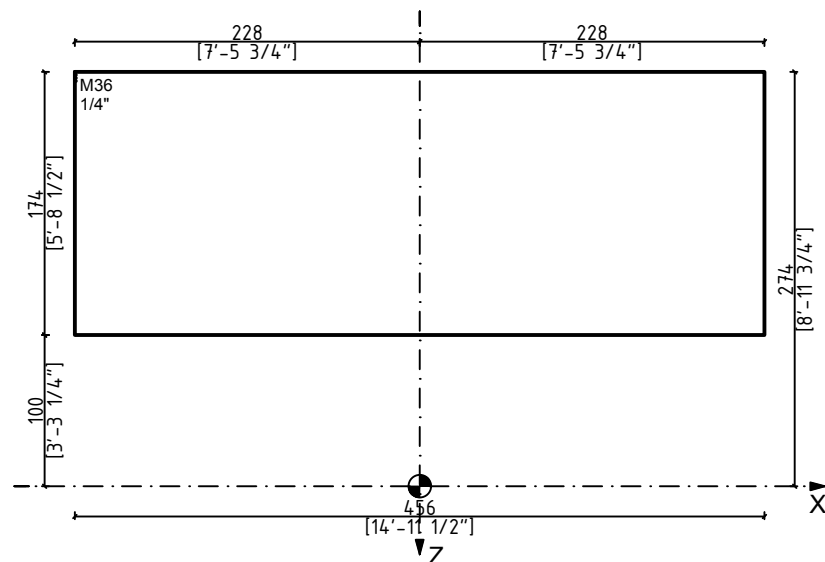
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Shielding Rearwall		
Position in Z-Direction	-274 cm	-8'-11 7/8"
magnetic flux in direction	XY	
Shielding Material	M36	
Weight	625 kg	1378 lbs



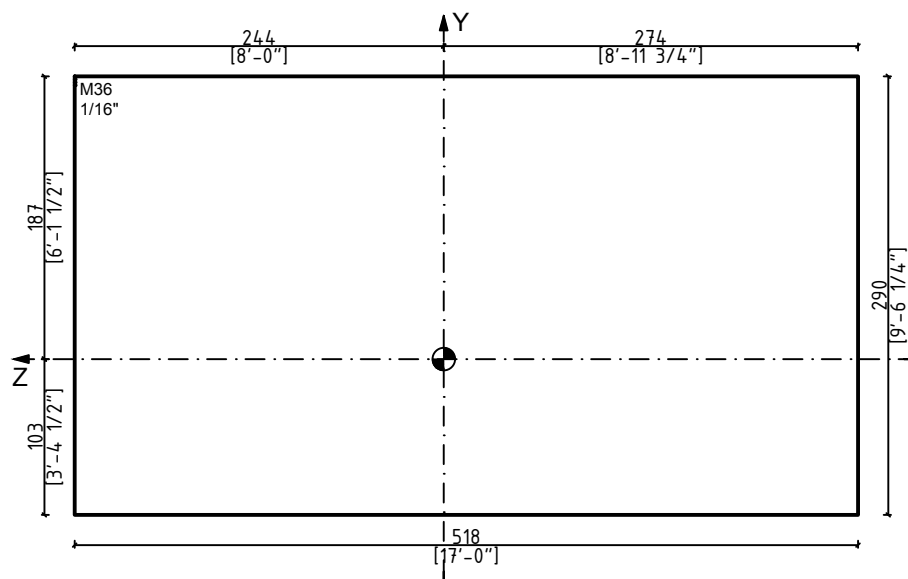
Shielding Floorplate		
Position in Y-Direction	-103 cm	-3'-4 1/2"
magnetic flux in direction	Z	
Shielding Material	M36	
Weight	375 kg	827 lbs



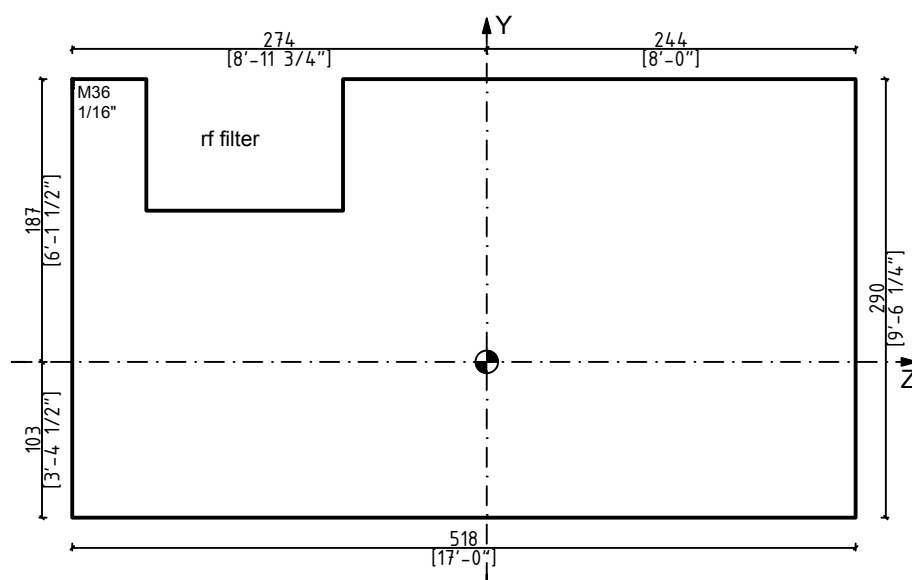
Shield dimensions



Shielding Sidewall (LEFT)		
Position in X-Direction	-228 cm	-7'-5 3/4"
magnetic flux in direction	Z	
Shielding Material	M36	
Weight	237 kg	522 lbs



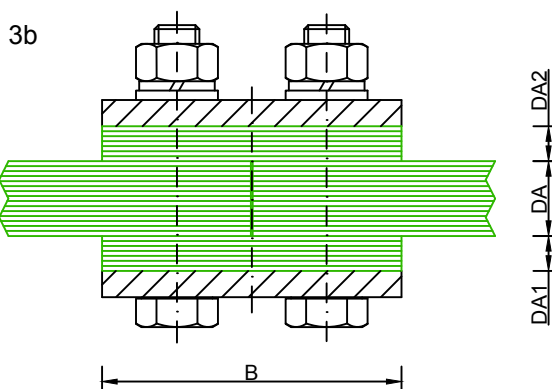
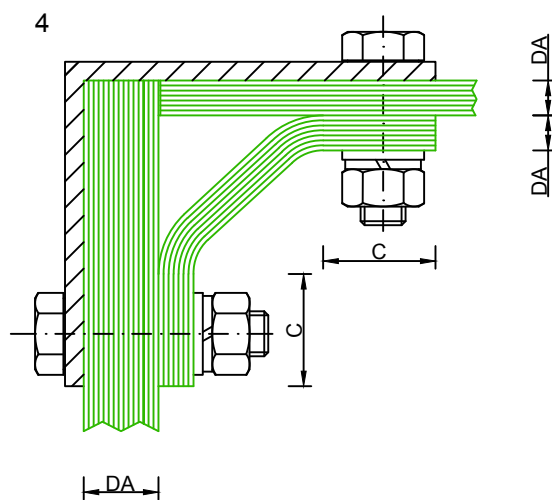
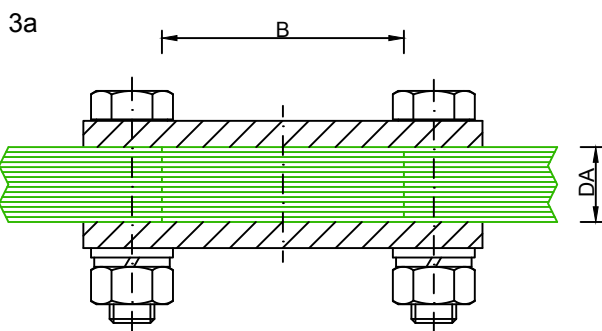
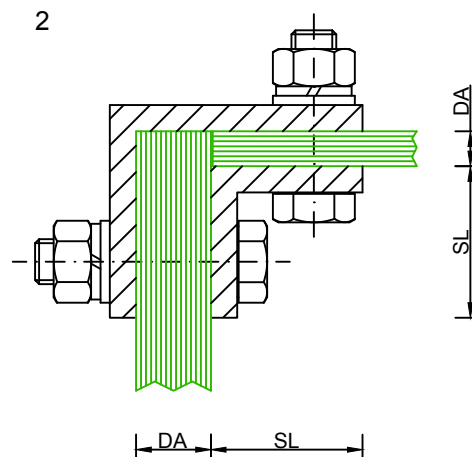
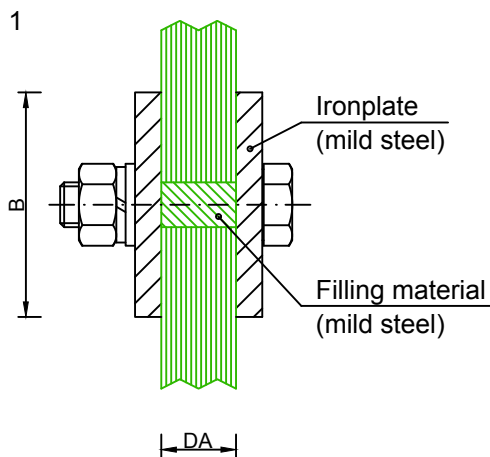
Shielding Sidewall (RIGHT)		
Position in X-Direction	228 cm	7'-5 3/4"
magnetic flux in direction	Z	
Shielding Material	M36	
Weight	219 kg	483 lbs



Shield dimensions



Examples for connections with transformer sheets (not to scale)



$$DA1 + DA2 = DA$$

$$B \geq 6 \times DA, \text{ min. } 60\text{mm}$$

$$C \geq 3 \times DA, \text{ min. } 30\text{mm}$$

$$SL = 3 \times DA, \text{ min. } 30\text{mm}$$

Examples for connections



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