

GERDA Topical Session

Outer Insulation of Cryostat

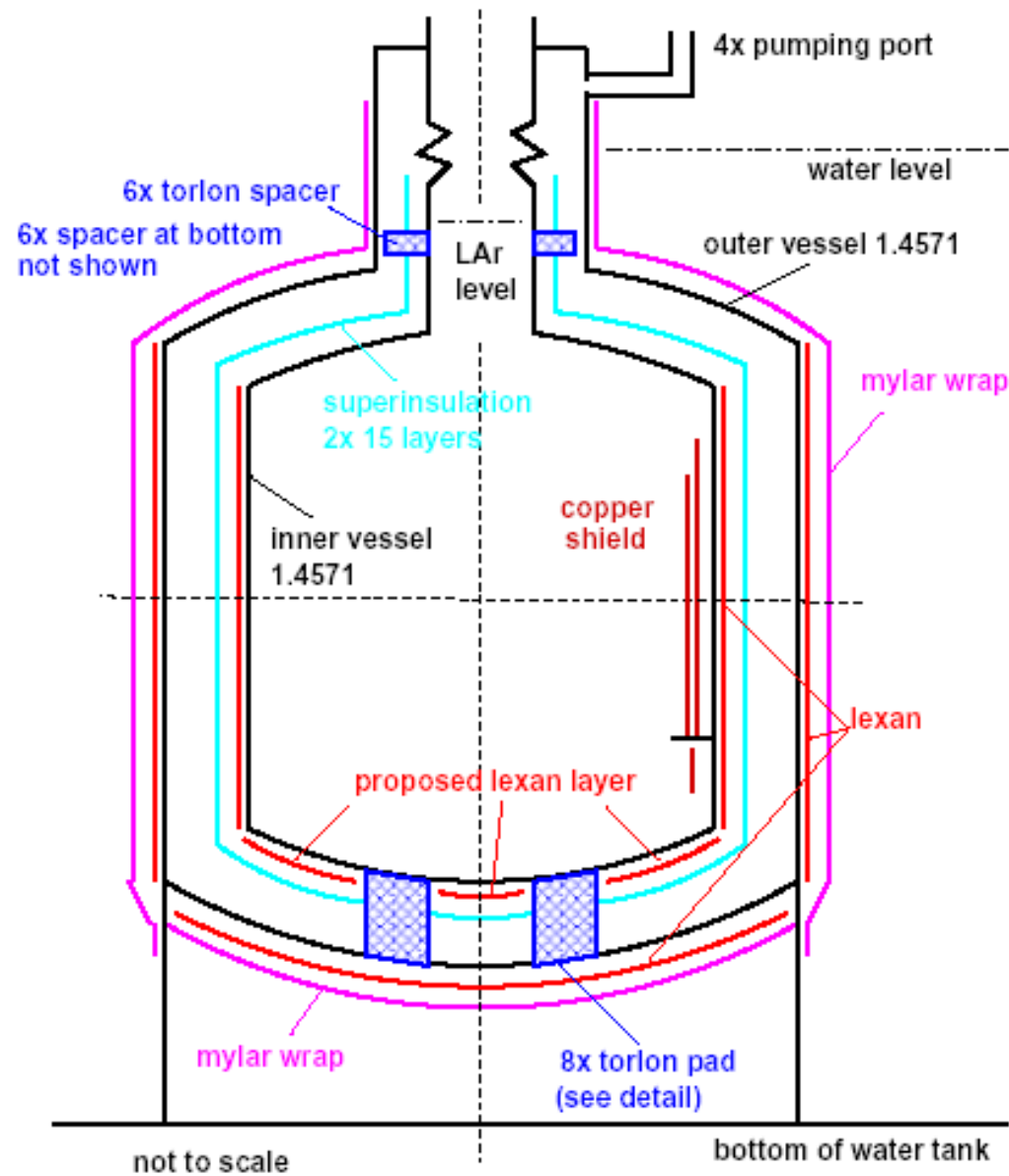
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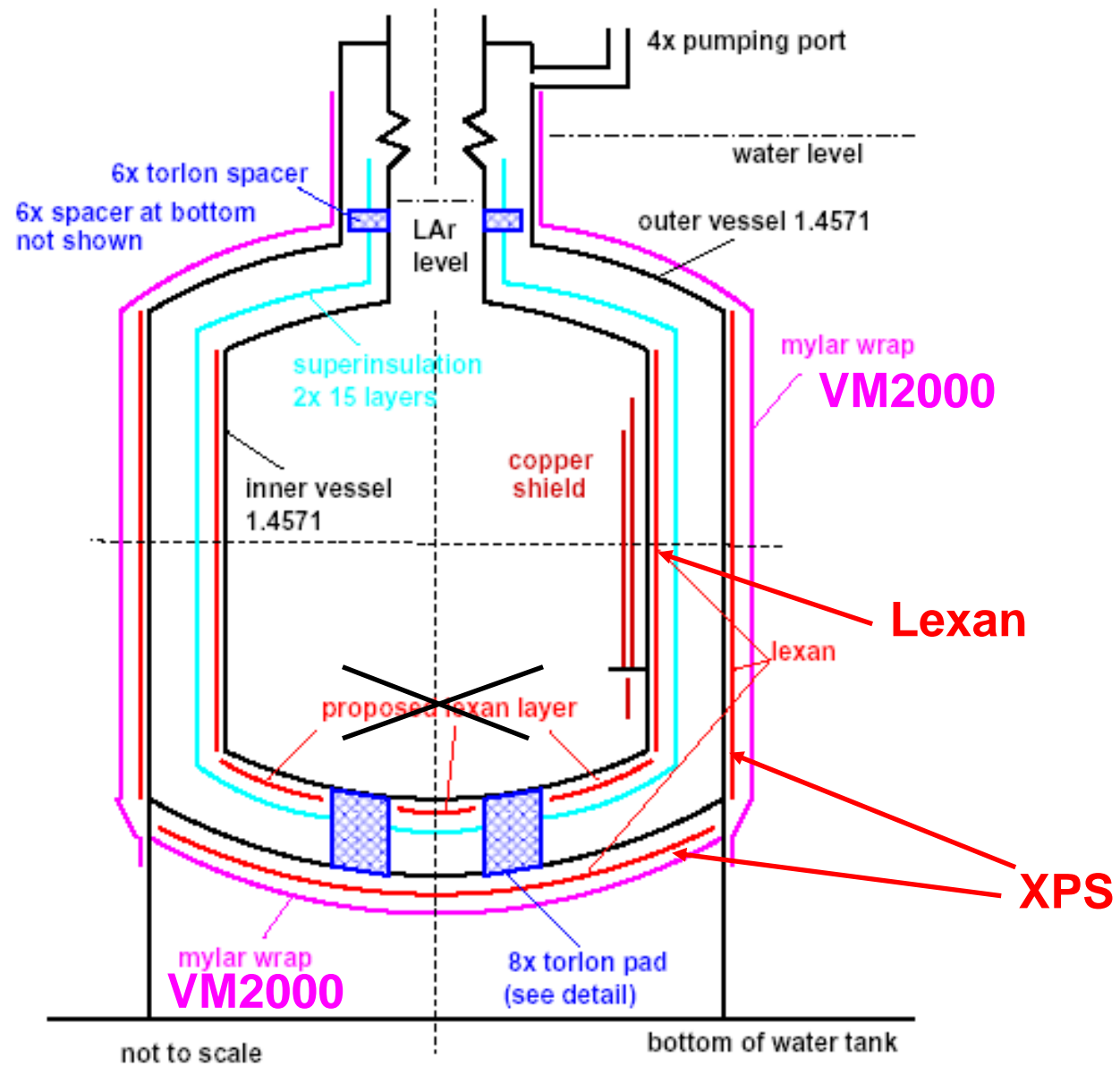
GERDA Collaboration Meeting at LNGS

10 - 12 November 2008



conceptual design

Figure from 'Details of GERDA cryogenic vessel insulations', KTK, draft of 22 Jan 2007 (see safety page)



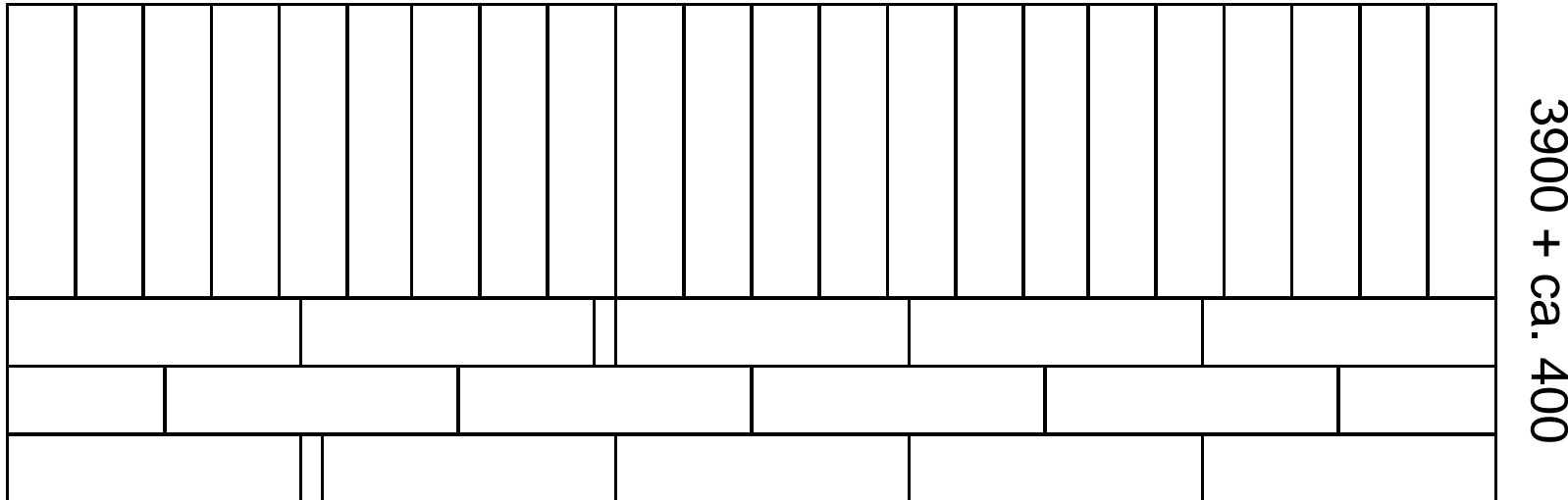
actual realization

Figure from 'Details of GERDA cryogenic vessel insulations', KTK, draft of 22 Jan 2007 (see safety page)

Extruded polystyrene foam (XPS):
Jackodur 300 FTD 2630x600x6 mm
(~0.035-0.04 W/(mK) : factor ~8 better thermal isolation than Lexan)
(long term water absorption <1 vol%)

22x 2630x600 (vertically)
15x 2630x600 (horizontally)

13200





more difficult to tailor
Jackodur sheets

thin stainless steel cover
plates/segments?

Conclusions:

Jackodur available

VM2000 foil available (Tübingen)

Stainless steel covers to be fabricated

Installation before muon veto installation !

Time estimate for installation (using Tüb. lifts):

< 1 week – depending on preparations

potential problem: cleanliness

XPS - being brittle - might produce dust.

END