

Cavity Design working group

How to edit this page: register here and send a mail with your TWIKI name to frank.gerigk@cernNOSPAMPLEASE.ch asking for access to the "SPL Cavity Design pages".

Collection of cavity design models and cavity interconnections in the SPL.

1. General cavity information
2. Medium beta section
3. High beta section
4. MME EDMS pages on cavity construction [↗](#)

General cavity information

Value1	Value2	Comment	Timestamp
frequency [MHz]	704.4		30 Sep 2009
design beta β_d (= geometrical beta)	0.65/1.0		30 Sep 2009
cells per cavity	5/5	$\beta_g = 0.65/1.0$	30 Sep 2009
cavity design gradient [MV/m]	19.3/25	$\beta_g = 0.65/1.0$	2010-04-13
(R/Q) [Ohm*] ($\beta_d=0.65/1.0$)	275/566		2011-11-17
Q_0 (b=0.65/1.0)	$6/10 \times 10^9$		2010-04-13

* linac definition

General SPL parameter: <https://twiki.cern.ch/twiki/bin/view/SPL/SPLparameterList>

Cryomodul integration: <https://twiki.cern.ch/twiki/bin/view/SPL/CryoModules>

HOM issues: <https://twiki.cern.ch/twiki/bin/view/SPL/SplHom>

Medium beta section: $\beta_d=0.65$ **Design from IPN Orsay (February 2010)**

- cavite_spl_betag065.cst: MWS design file SPL cavity beta=0.65
- SPL5cellb065.af: Superfish input file SPL cavity beta=0.65

Design from IPN Orsay modified to fit with $\beta_d=1$ equipment (November 2010)

- cavite_spl_betag065_modified.cst: MWS design file
- splb65mod.af: Superfish input file

High beta section: $\beta_d=1.0$ **Studies done by R. Calaga:**

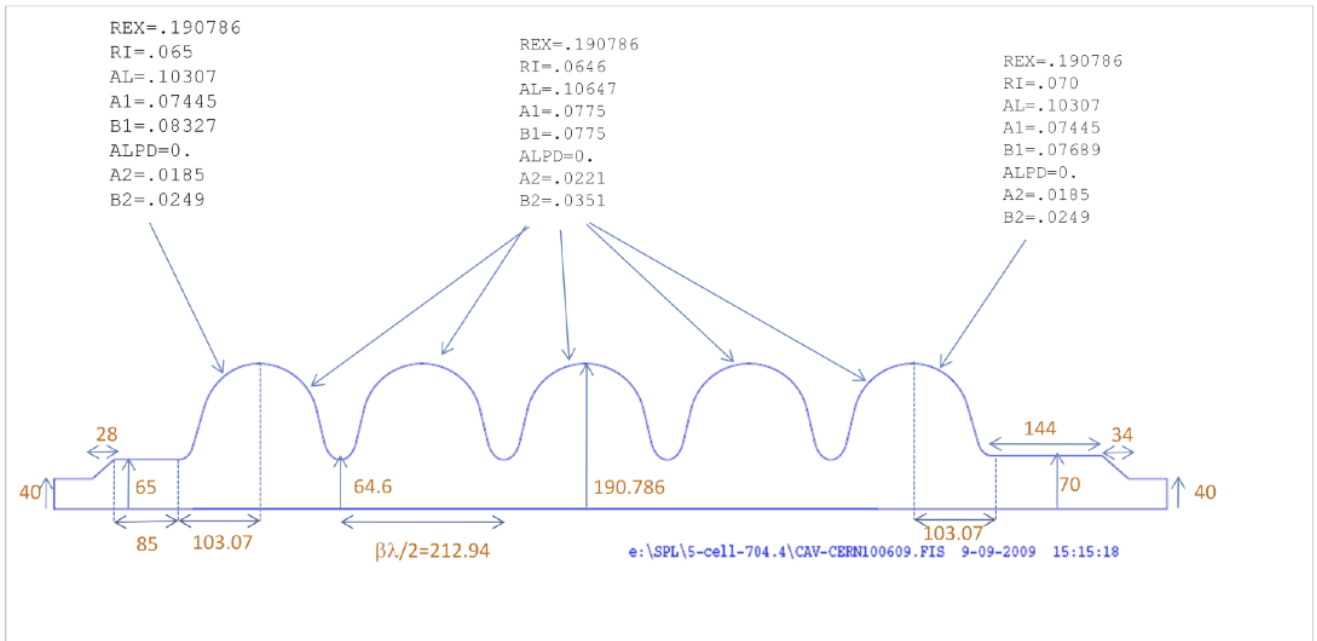
- [Link](#) [↗](#)

Design from CEA-Saclay (September 2009)

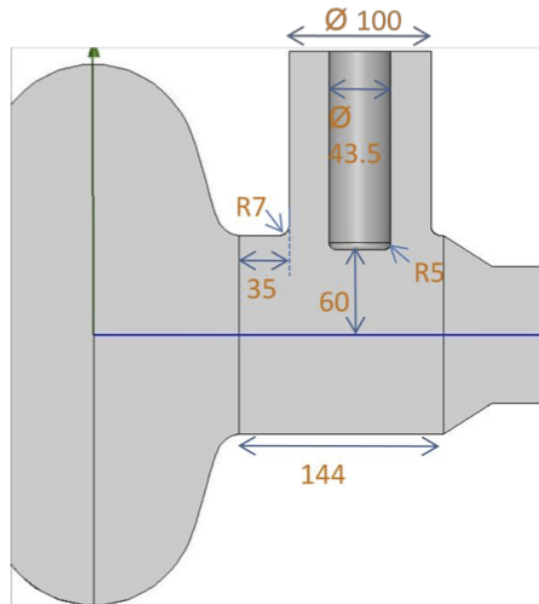
- pdf file
- Superfish file: Superfish geometry input file

DIMENSIONS DE LA CAVITE SPL $\beta = 1$

DESIGN CEA-SACLAY



POSITION ET DIMENSIONS DU COUPLEUR DE PUISSANCE



-- MarcelSchuh - 17-Feb-2010

This topic: SPL > Cavitydesign

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