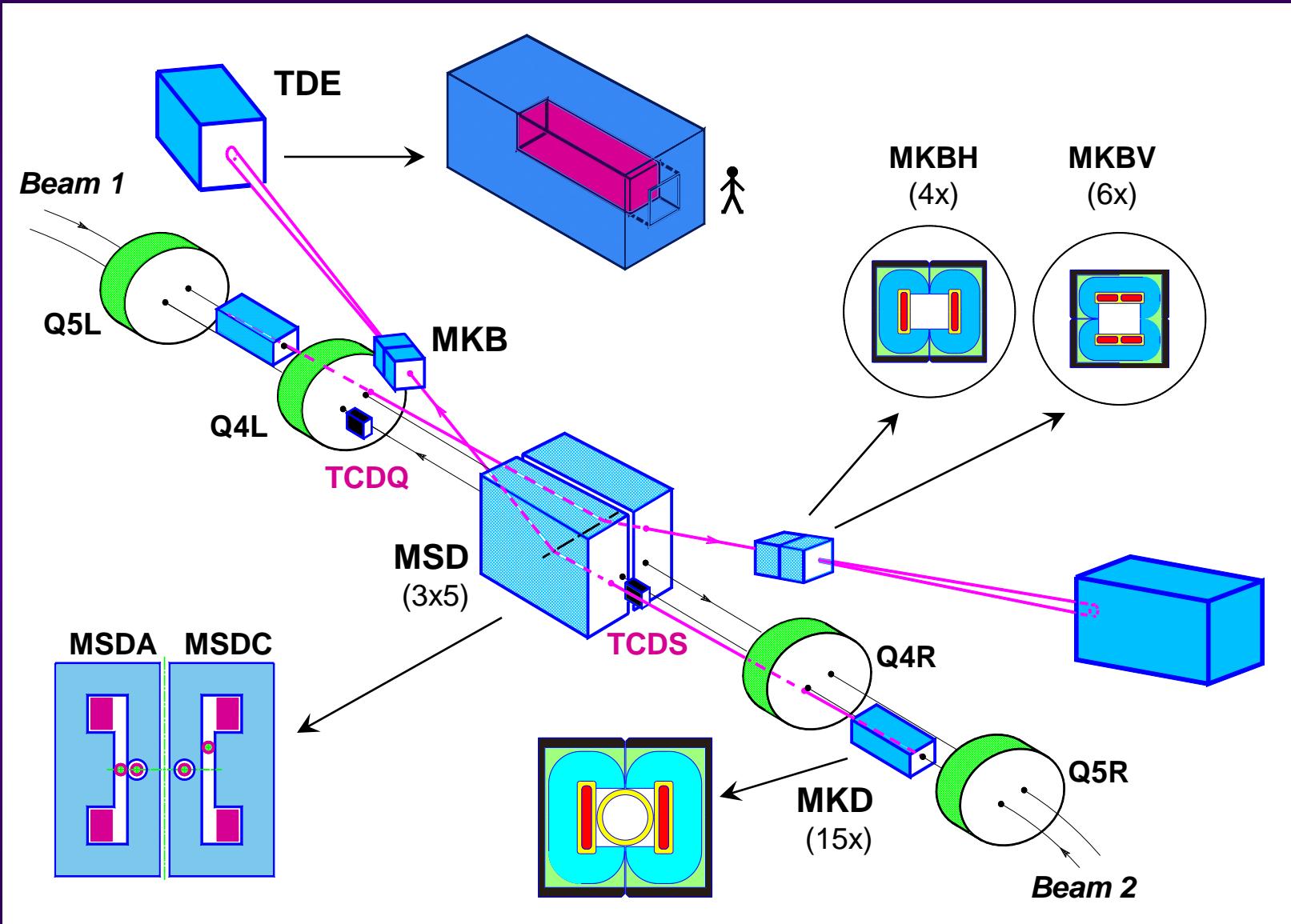


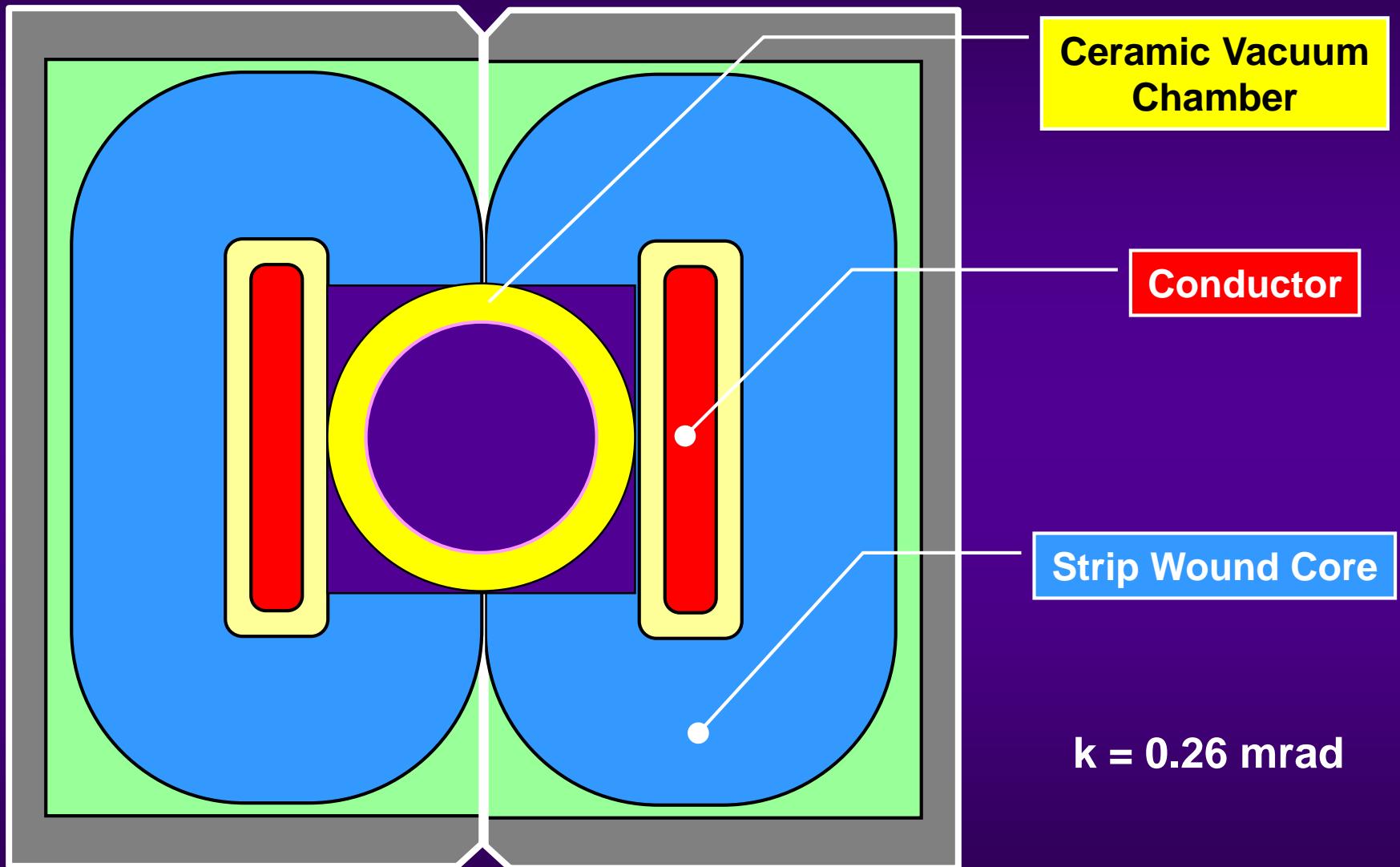
# The LHC Beam Dump System

Aperture limitations  
in the MSD septum  
magnet

# Schematic Layout



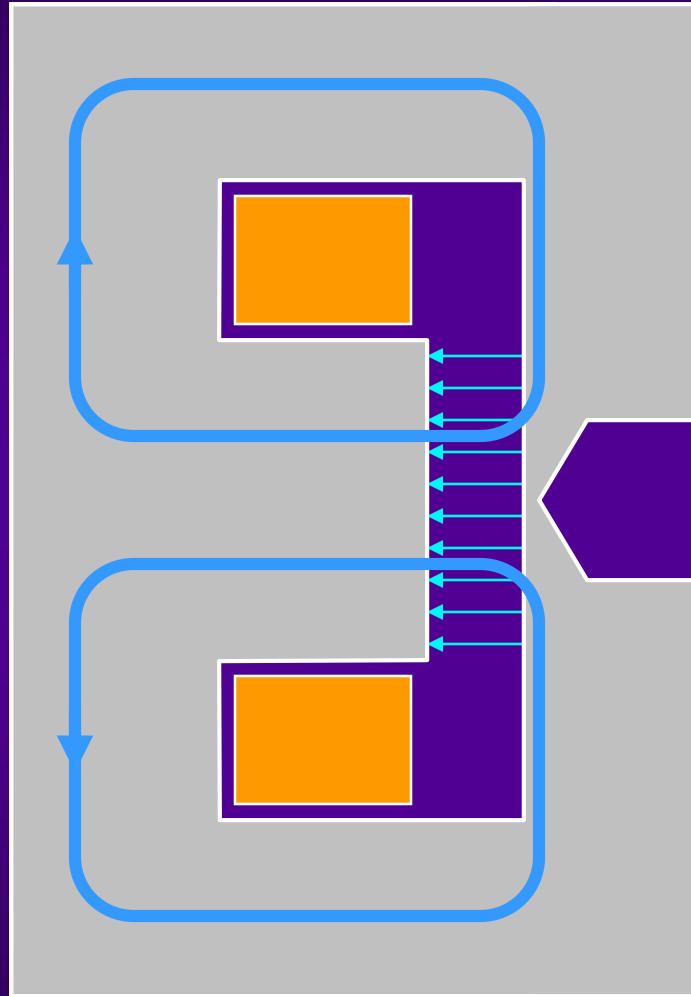
# MKD cross section (schematic)



$$k = 0.26 \text{ mrad}$$

# Lambertson septum magnet (principle)

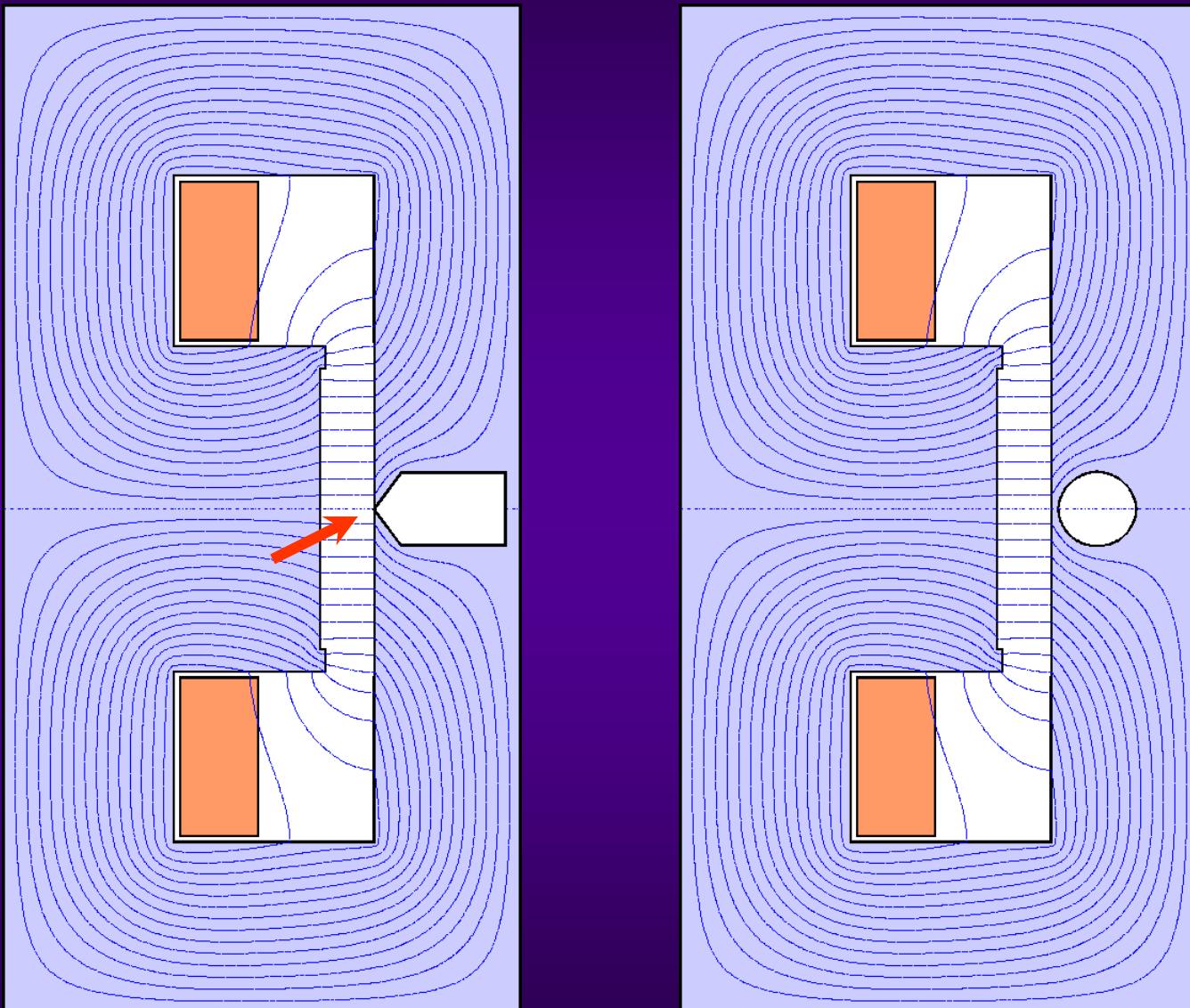
the deflection  
of the septum  
is orthogonal  
to the one of  
the kicker



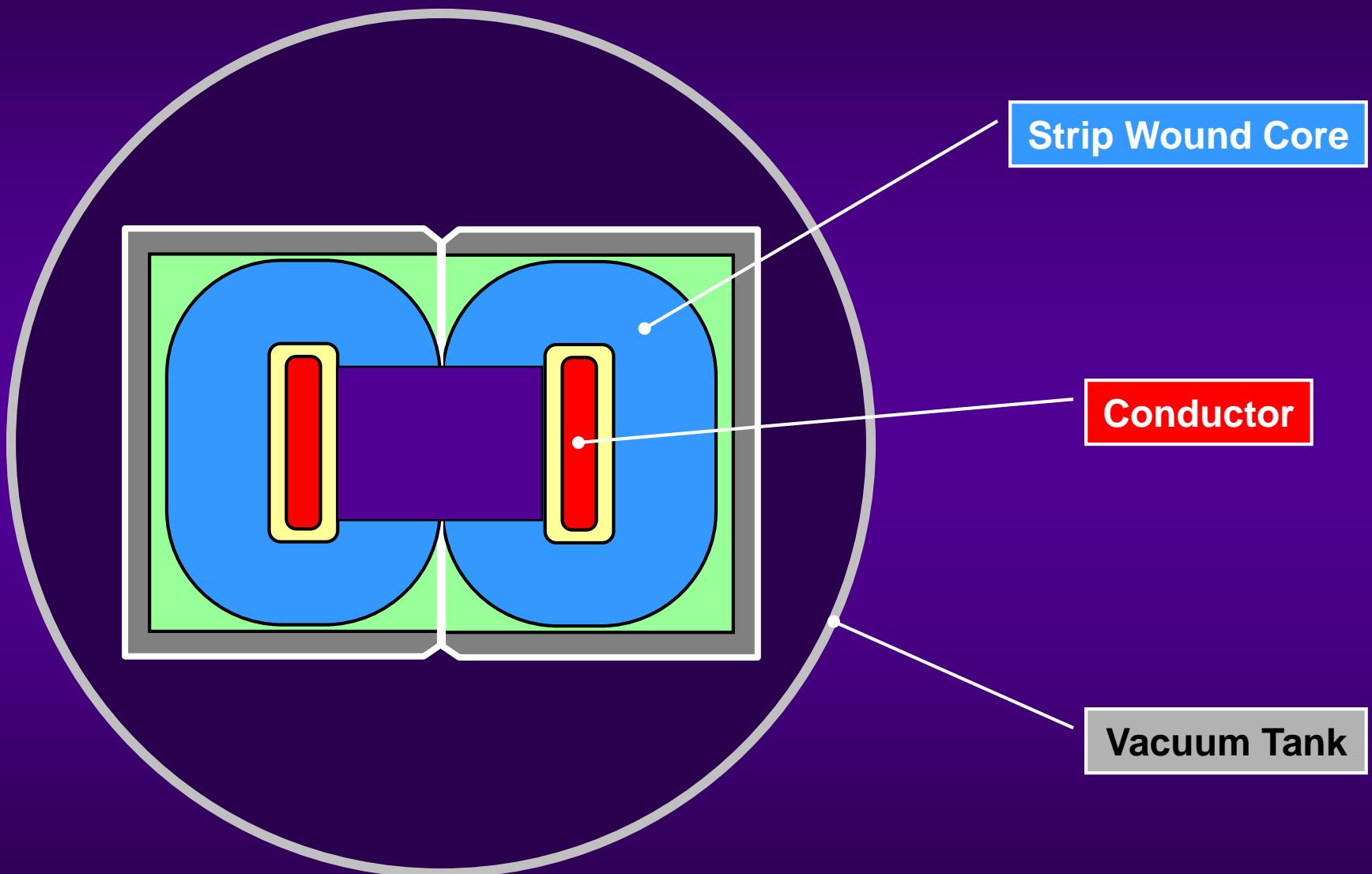
Saturation  
of septum

Add iron

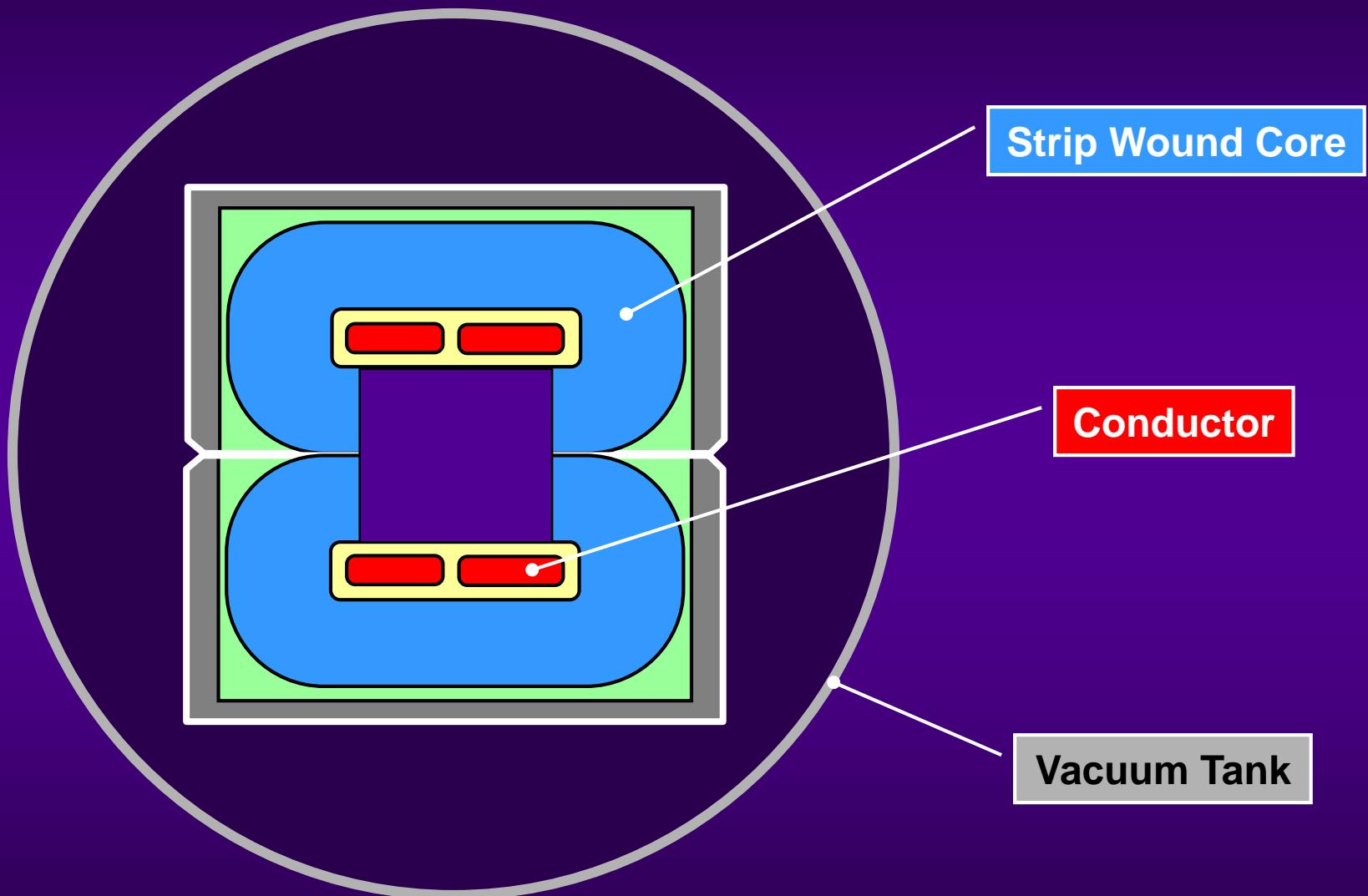
# Beam dump septum magnet MSD



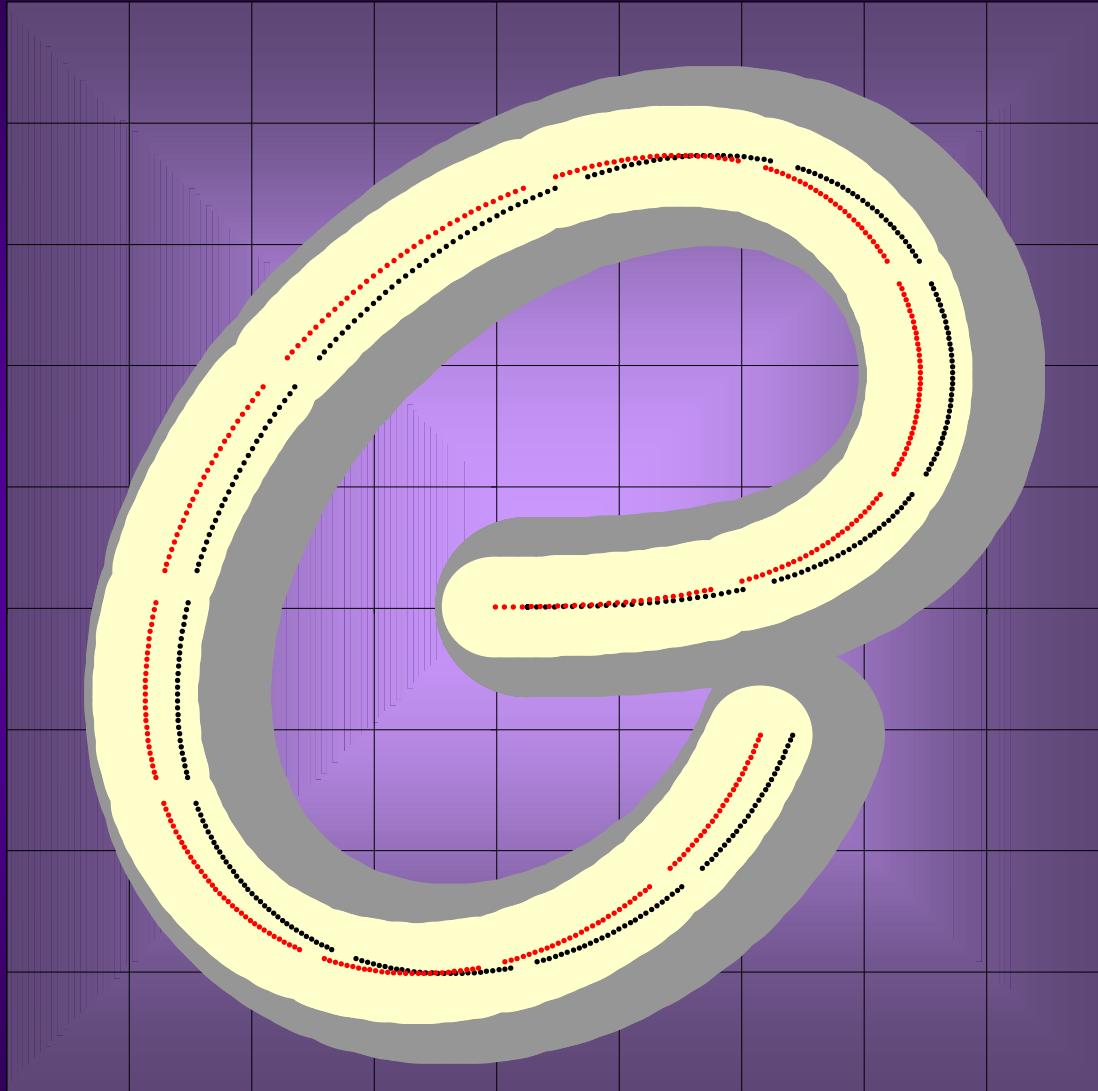
# MKBH cross section (schematic)



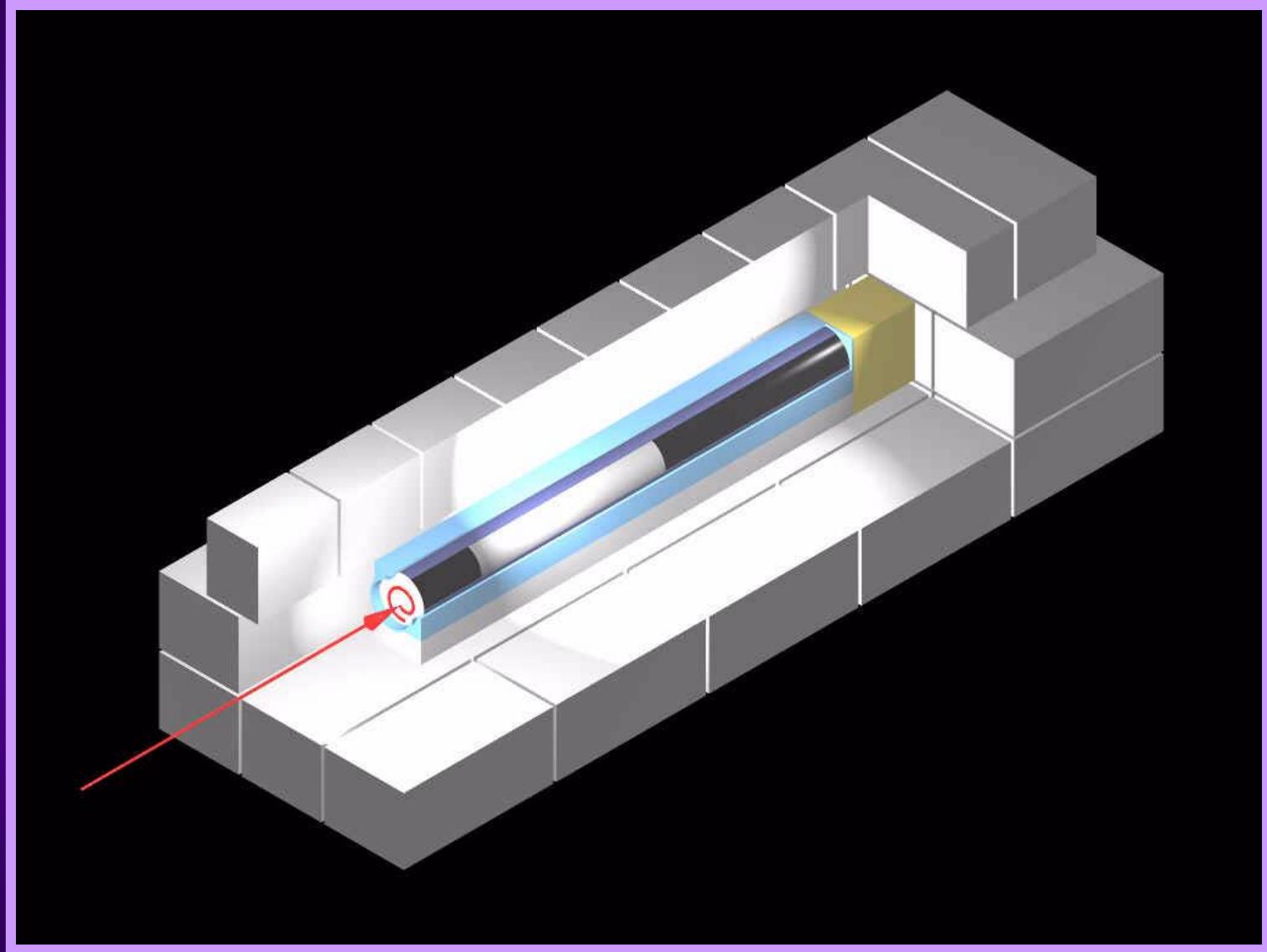
# MKBV cross section (schematic)



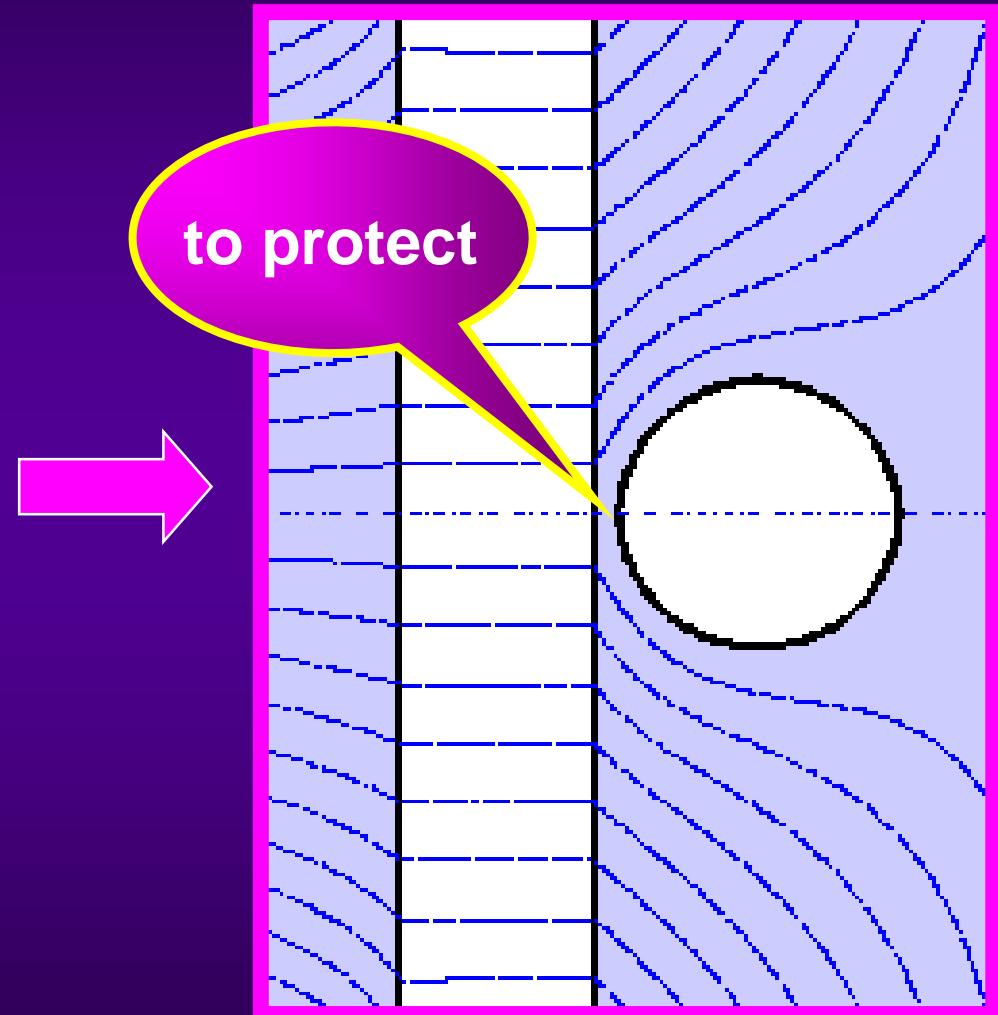
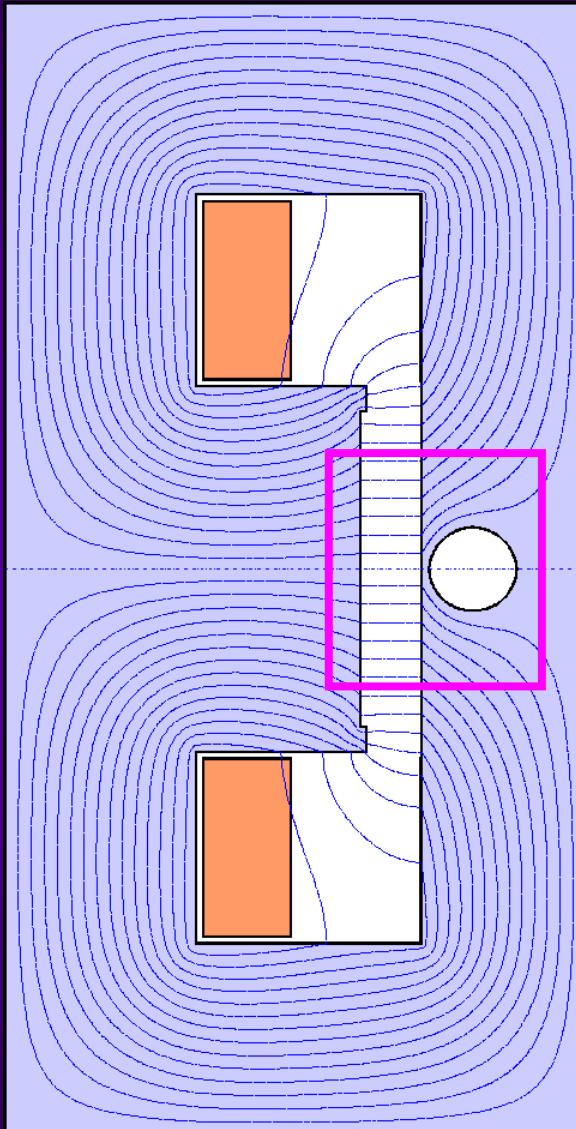
# Beams on TDE



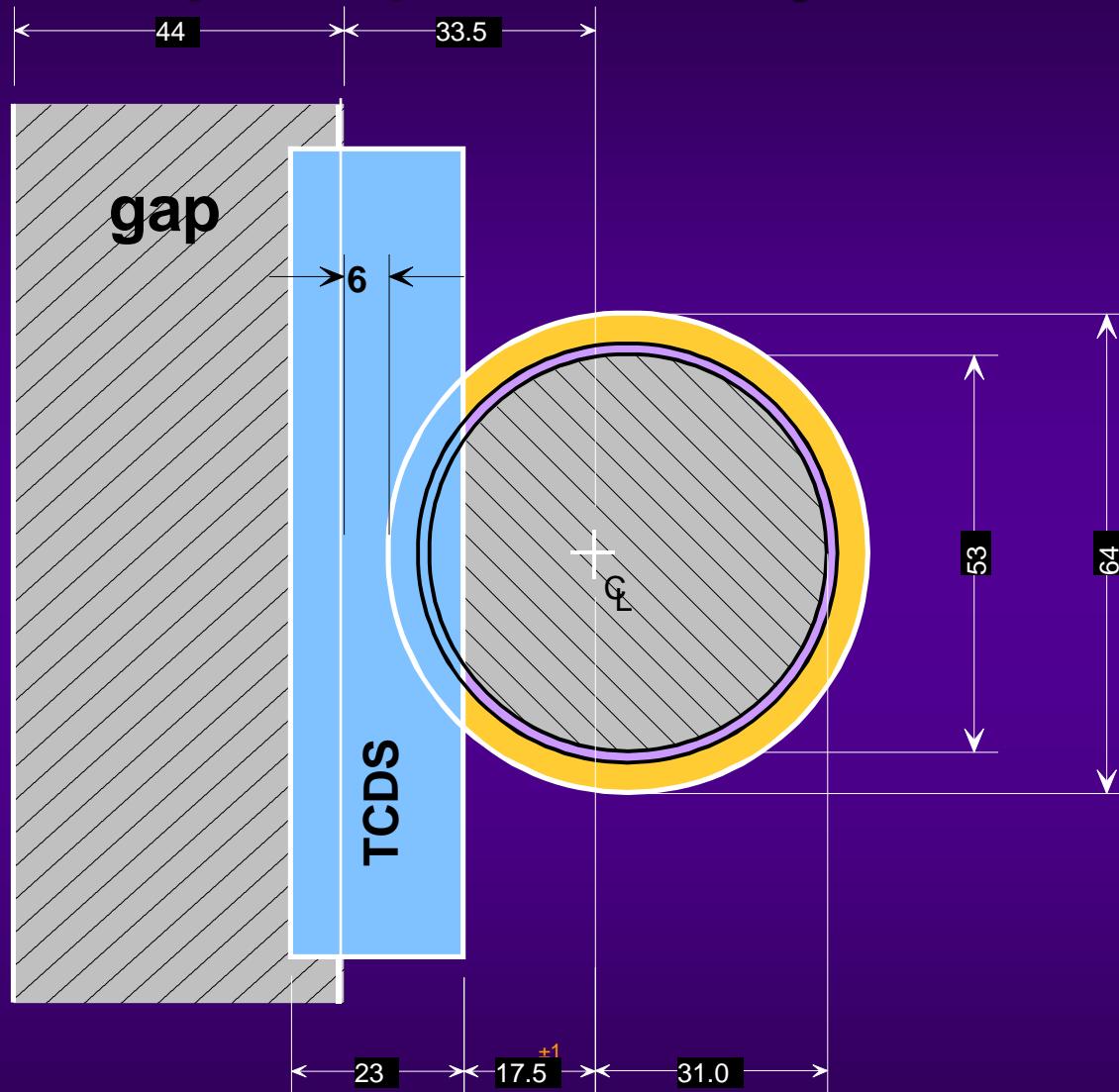
# TDE



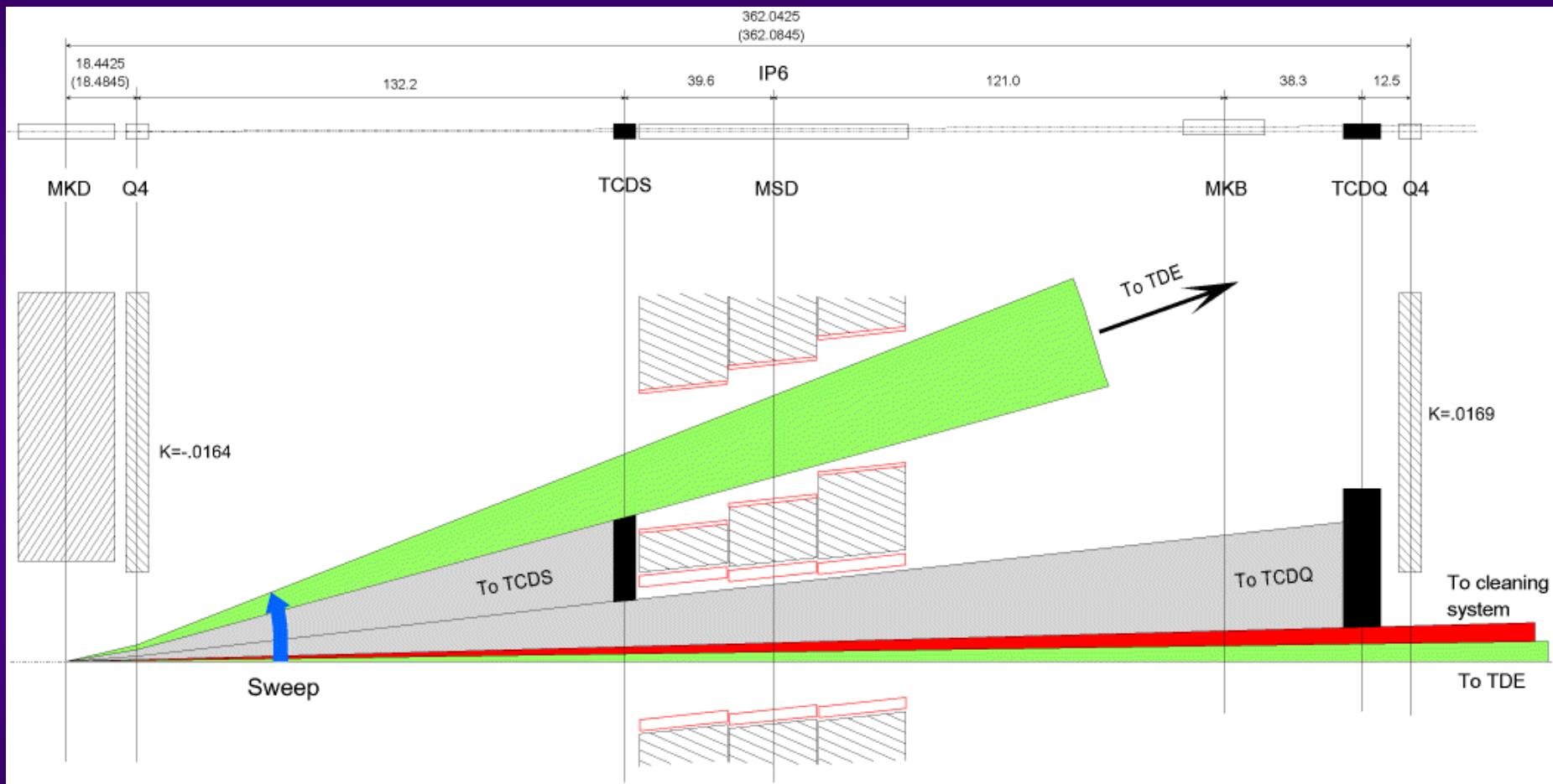
# Unsynchronized Beam Dump



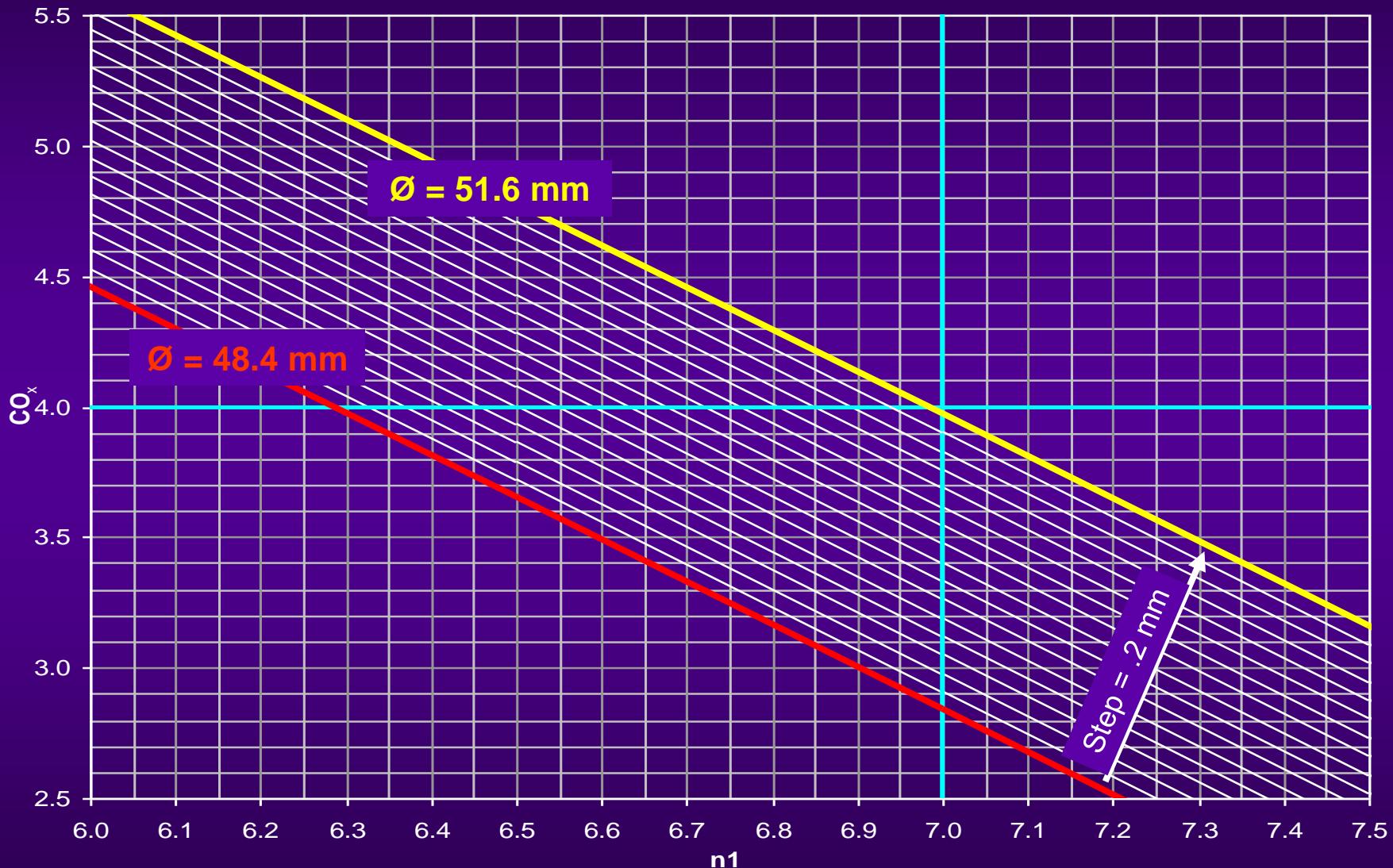
# Septum protected by TCDS



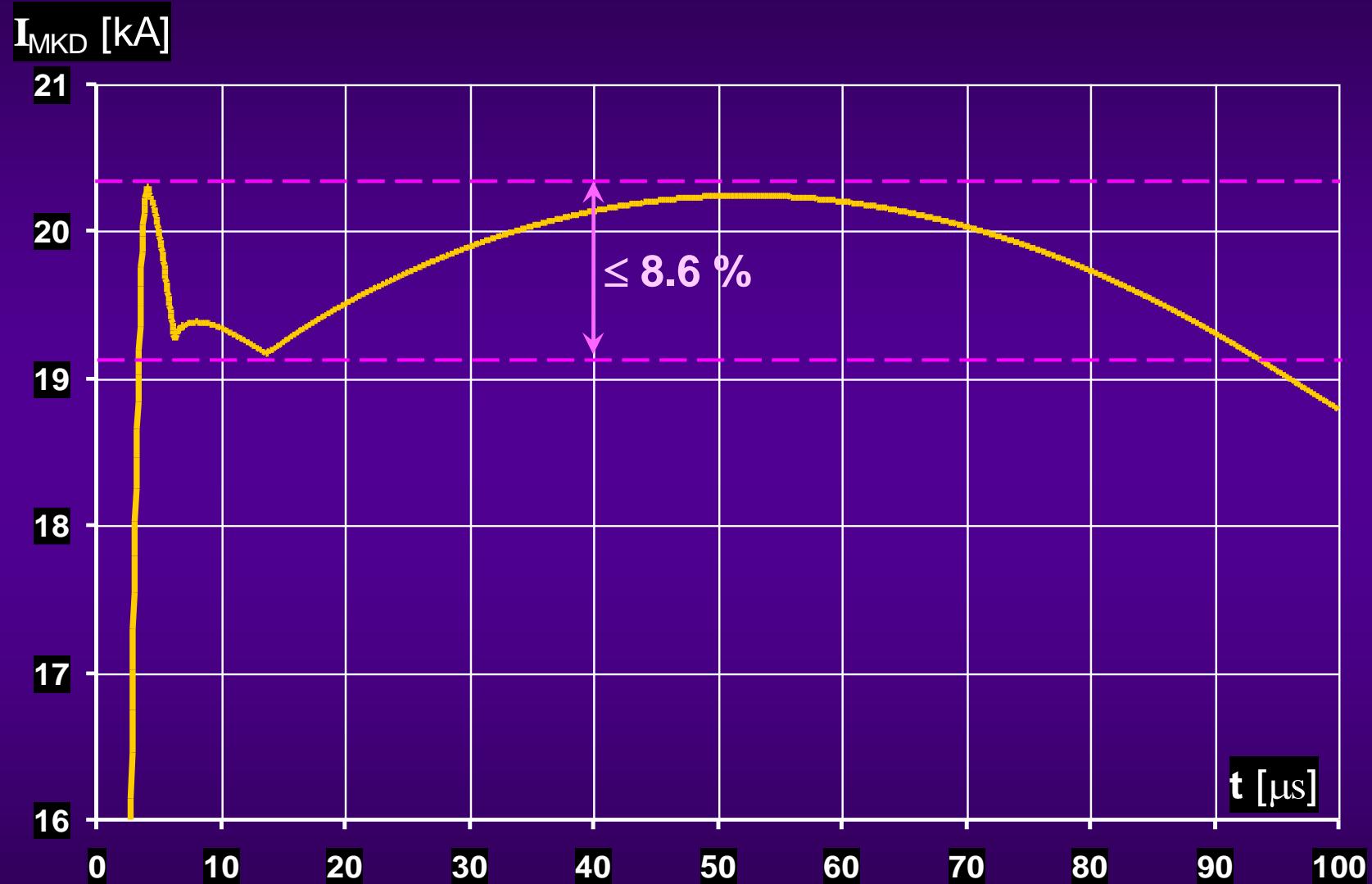
# MSD Alignment



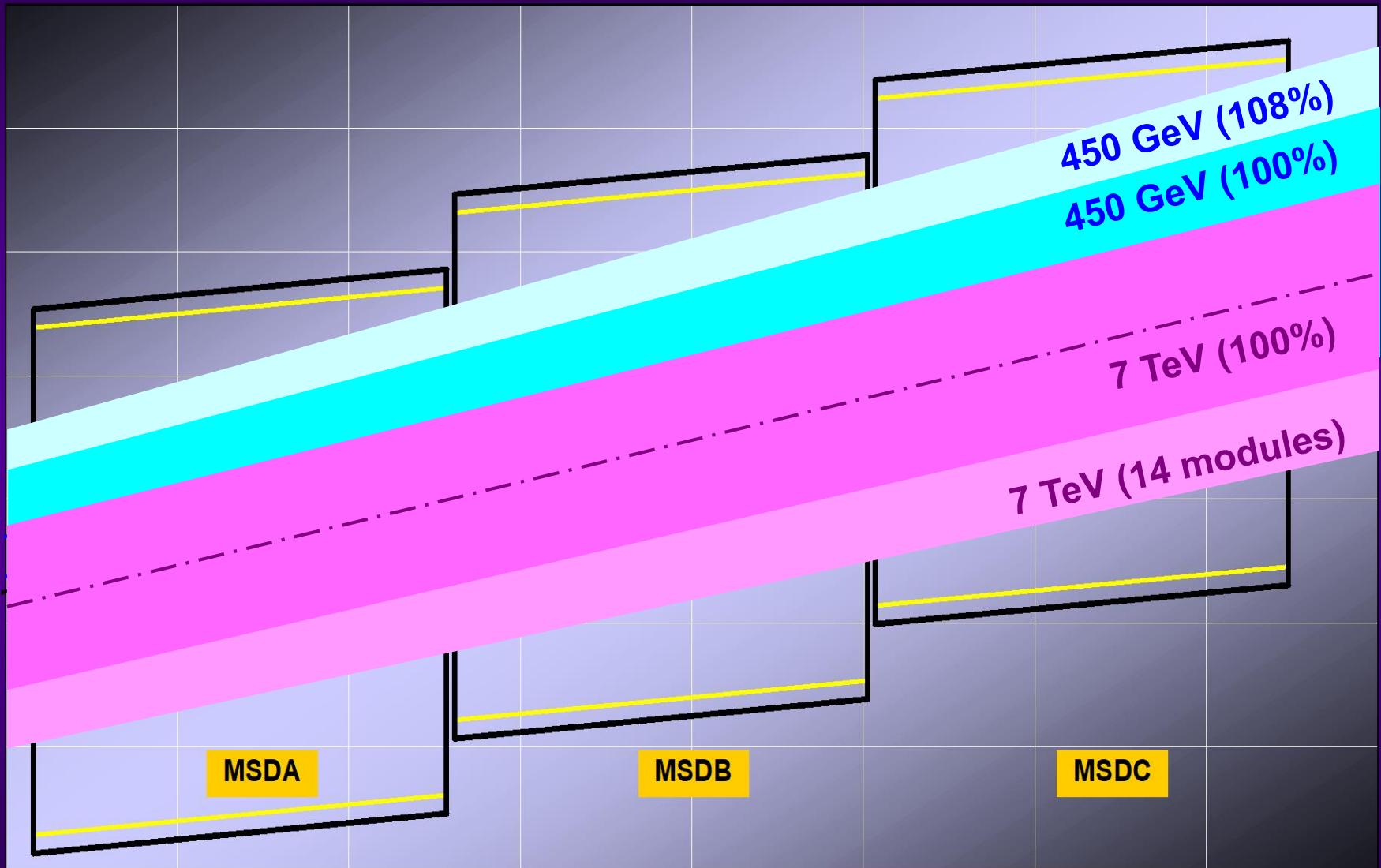
$CO_x = CO_x(n_1)$  ; parameter = VC clear aperture



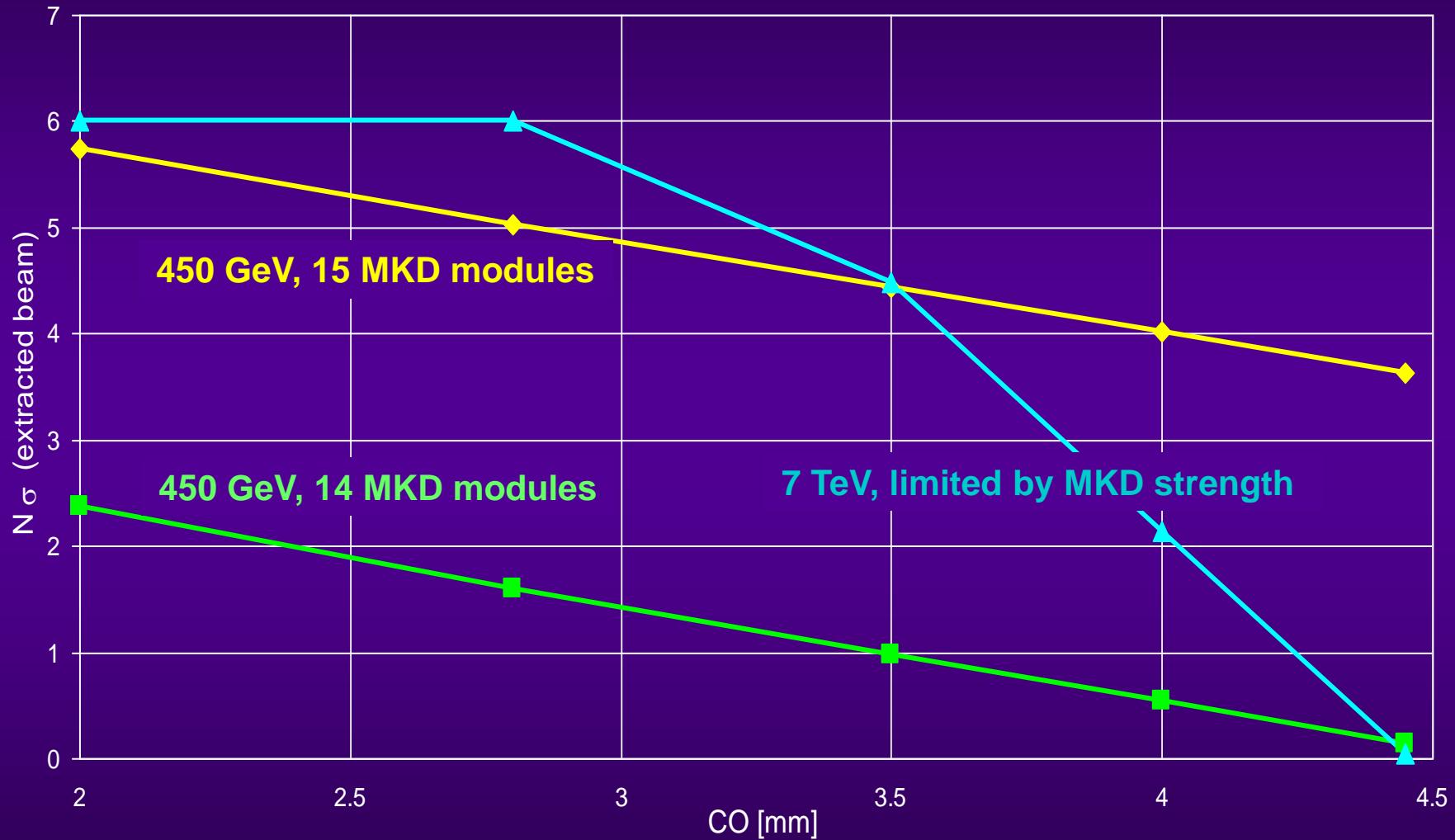
# MKD Flat-top Current Variation



# “Nominal” Beams in Gap (horizontal)



# Admittance ( $\sigma$ ) as function of Closed Orbit



# Admittance ( $\sigma$ ) as function of $n_1$

